AutoPROCESS Permits Module Summary Processing and Tracking

AutoPROCESS Backup/Restore Procedures for Personal ORACLE

AutoPROCESS Interface and Importation Baseline Specifications:

Legacy Data Conversion
Notices Included
Detailed Payments
Imaging
IVR
Collections Interface
Interactive Cashiering (API)
(Outside Cashiering Interface
and
Other Cashiering Payments)

ENFORCEMENT TECHNOLOGY, INC.

AutoPROCESS
Permit Issuance and Tracking Module

Rev C

September 1999

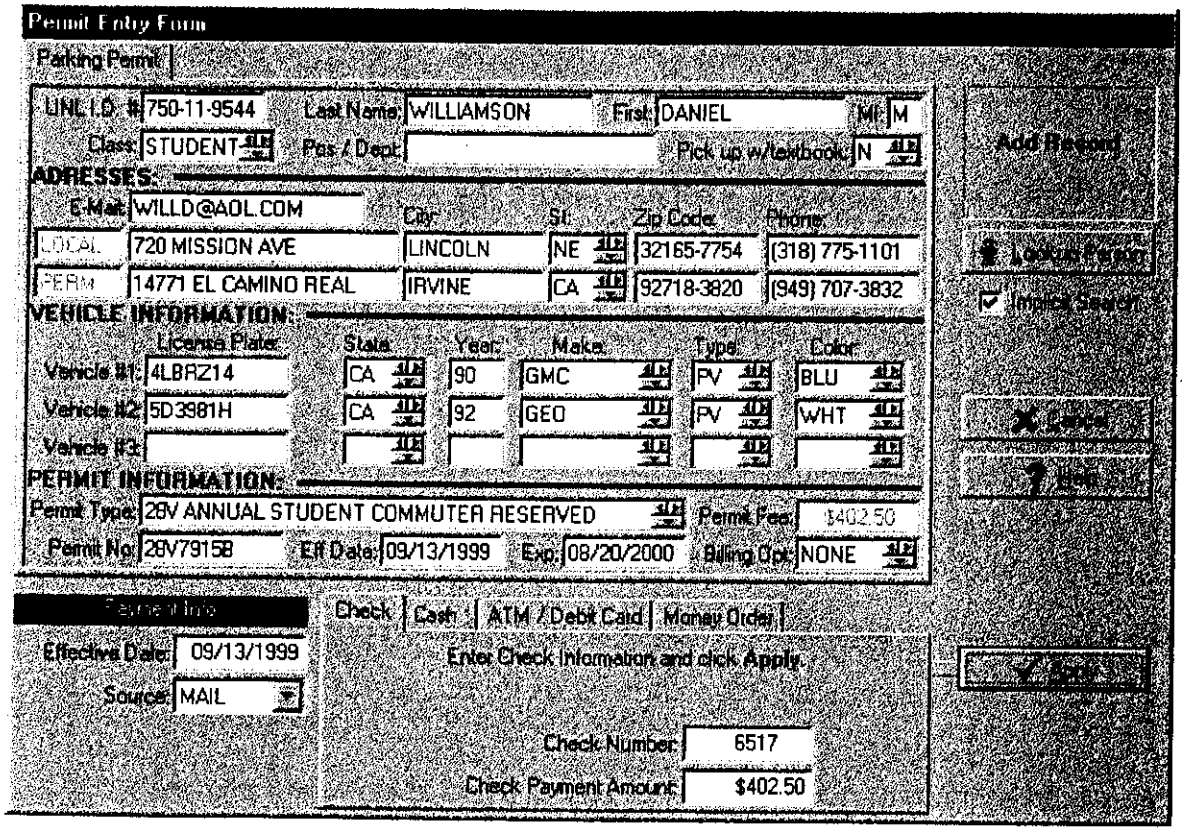
With the permit issuance and tracking module, you can handle all aspects of parking permit issuance and tracking, from cash register sales, to over the counter issuance, to controlled batch entry for mail based processing.

The AutoPROCESS Permit Issuance and Tracking Module:

- is fully integrated with the AutoPROCESS parking citation processing module, enabling the resolution of parking citations issued incorrectly to permit holders, or the withholding of permit sales due to outstanding parking citations
- provides financial controls for the tracking and reconciliation of fees collected
- can generate custom notices for use in renewal or informational mailings
- is integrated with the AutoPROCESS cashiering module, allowing outstanding balances for parking citations and new permit sales to take place in one transaction
- can be configured to match your existing permit data entry flow, for easy transition
- can import data in various formats, including data generated by ScanTron application forms
- can interface with other systems, such as accepting payments via payroll deduction through periodic file import and/or export
- allows permit types to be defined with flat rate, prorated, or tiered fee schedules

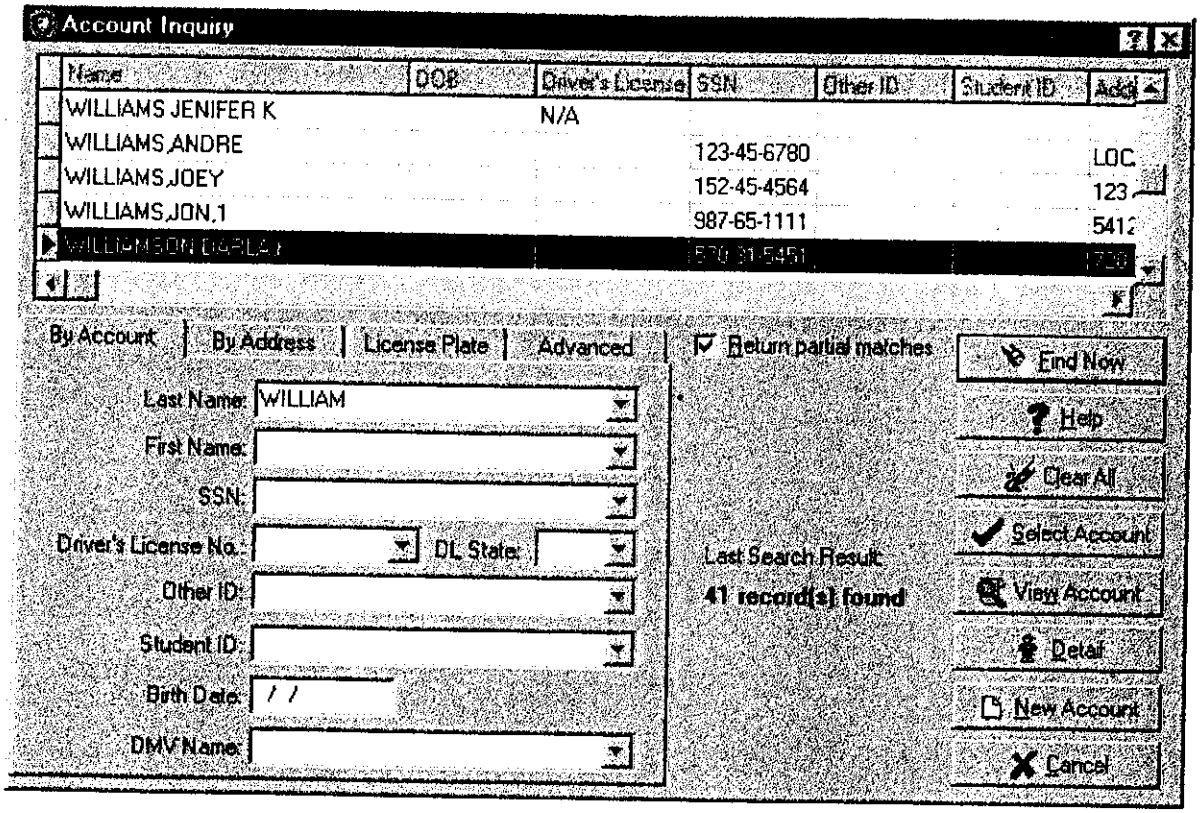
Examples of these and many other features are described on the pages following.

Using the simple yet powerful data entry screens, the system will assist operators in fast and efficient data entry of permit information with a minimum of keystrokes. The all-in-one entry flow allows the addition of the permit holder data, the associated vehicle data, the permit type data, and the payment data all in one screen, without having to jump between many forms to complete a permit sale.

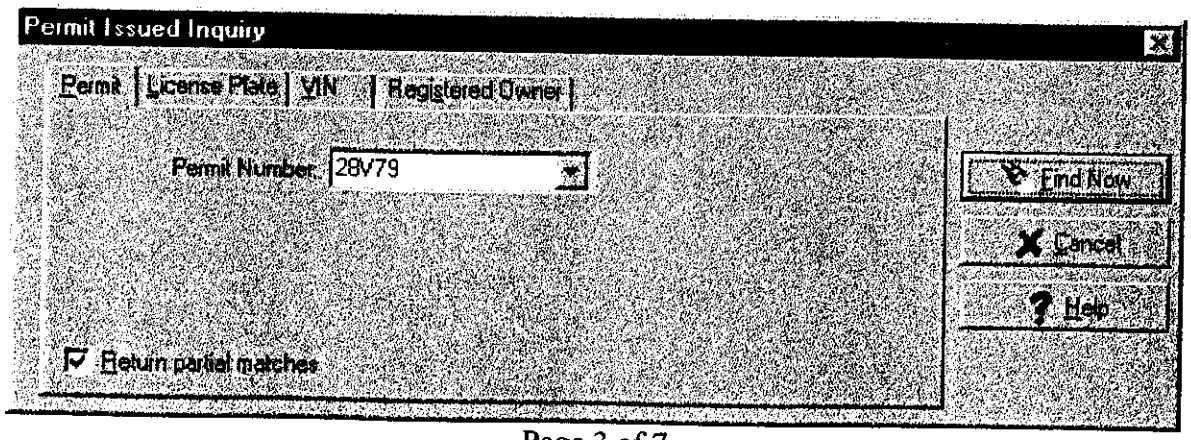


These entry screens can be fully customized to match the fields and flow of your organization's existing paper permit application forms, making the transition and data entry very easy for your operators.

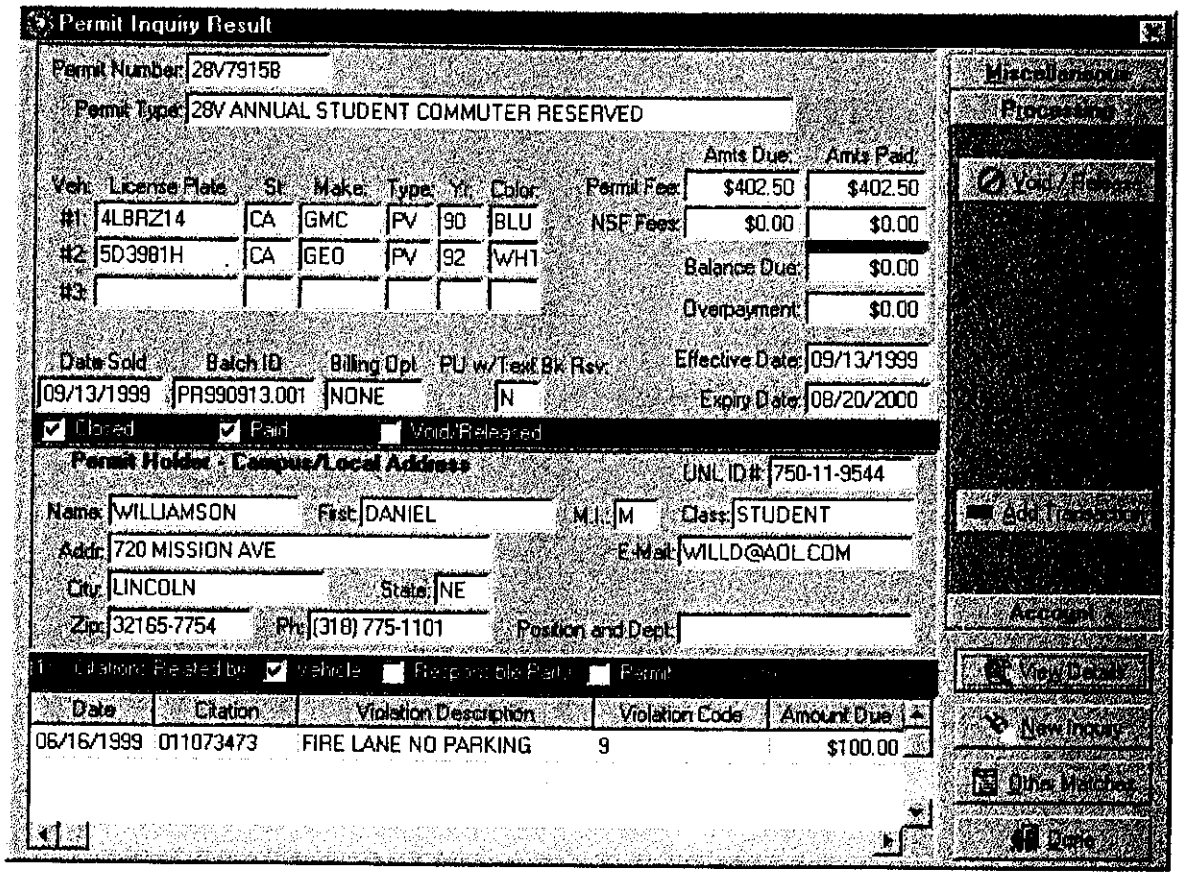
Full integration with the person/account database tables allows easy lookup and selection of parties already on file in the system to eliminate the need to re-key data already available. This feature makes permit renewals and new sales to returning parties a snap.



Powerful search tools can find permits on file based on partial string matching of permit numbers, vehicle plates, or permit holder criteria. An automatic background search utilizing a sophisticated soundex matching algorithm can locate permits even when operators key in misspelled names.

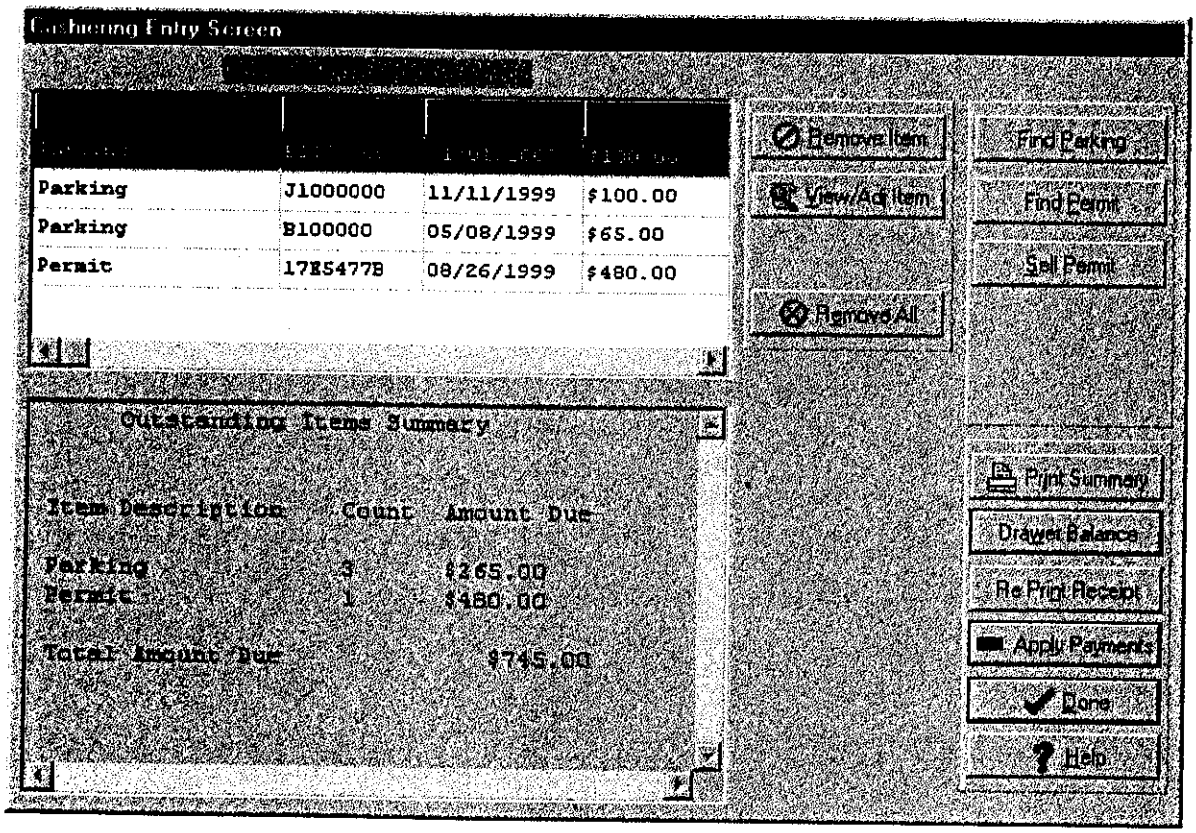


The permit data is displayed in a concise and easy to understand format. Permits can be updated from this screen as well, including voiding/revoking, correcting data entry errors, or adding payments (as well as reversing payments applied in error, or due to NSF). Additionally, the integration with the parking citation processing module makes it easy to see any citations issued to the permit holder or against the vehicle, along with any amounts due on these citations. Any of these related parking citations can be displayed in full detail without leaving the permit screen simply by clicking on their summary in the grid.

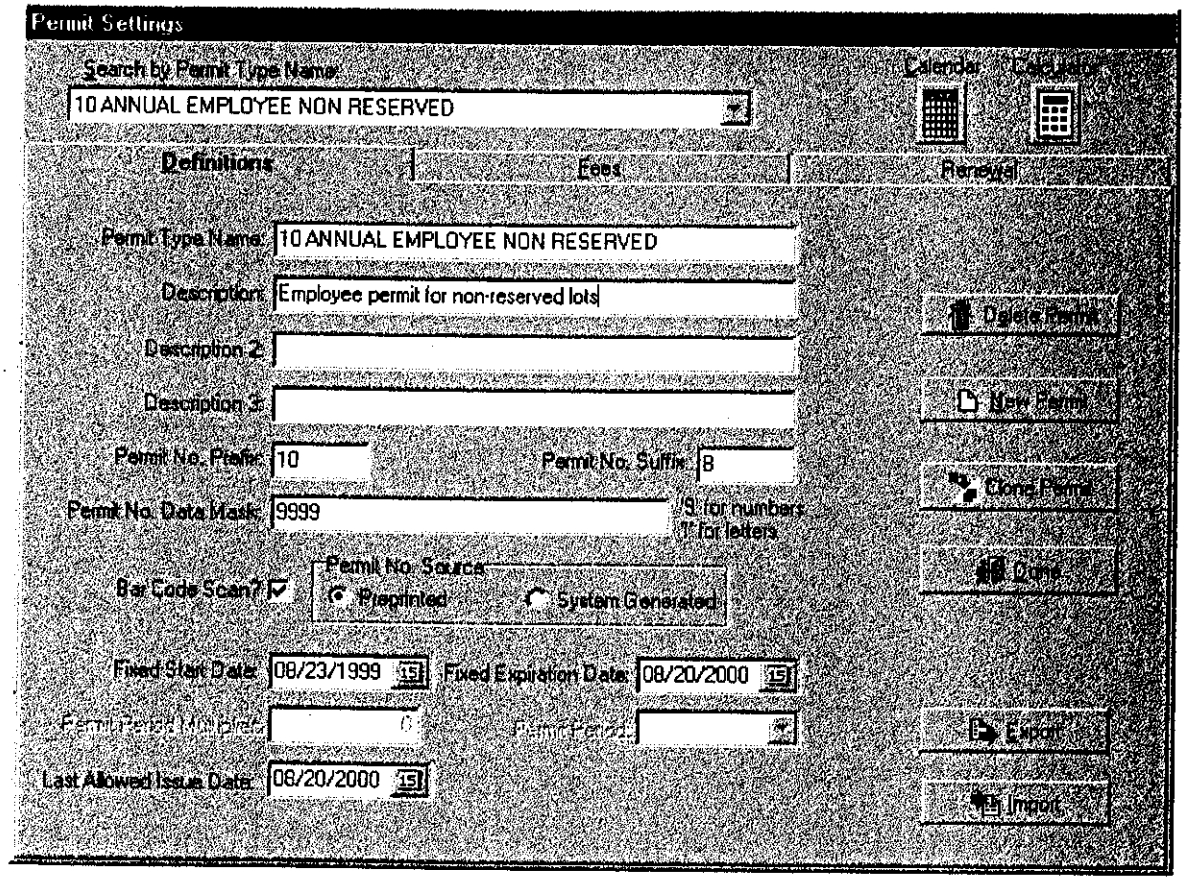


Custom notices can be generated for mailing to permit holders. These notices can be targeted according to a multitude of criteria, such as permit expiration date (for automatic renewal noticing) or type (to notify regarding lot closures for resurfacing). Individual notices can be generated from this screen as well.

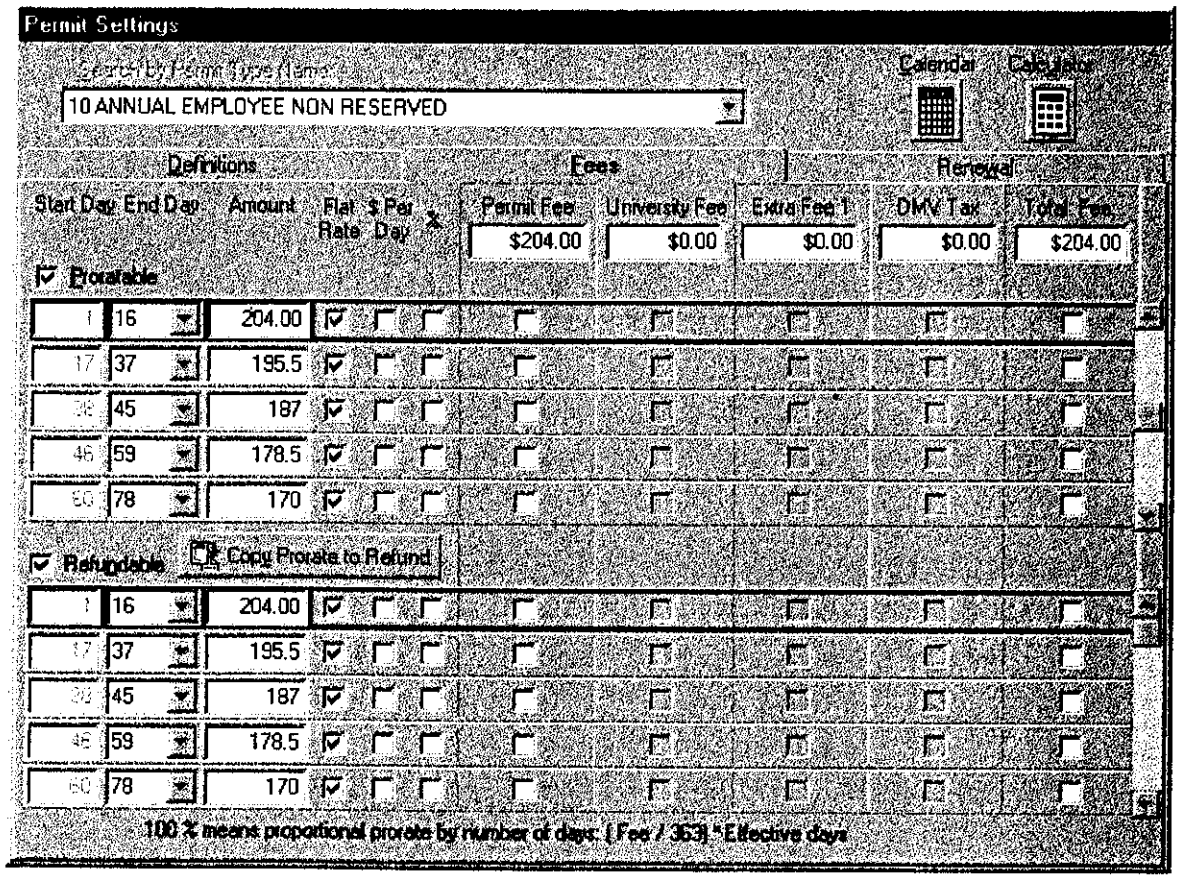
When using the optional AutoPROCESS cashiering module, permit sales can be conducted in a single payment transaction while paying outstanding parking citations



The permit definitions allow you to define permit names and other details (i.e. permit prefixes and suffixes, effective and expiration dates, etc). Advanced editing tools allow you to clone permit types to make minor changes (for example, prefix or expiration date). These tools help to ensure consistency across types and save you set-up and maintenance time.



The permit definitions allow for flat rate, pro-rated, and tiered fee schedules, as well as combinations of these. Refund and renewal rates can be described in similar fashion. Zero dollar amounts are also allowed for temporary or guest permits.



AutoPROCESS Startup Instructions
Appendix A: Permit Issuance and Tracking Module

Rev. C

November 5, 1999

Information required to set up and configure the AutoPROCESS Permit Issuance and Tracking module.

1. For ***each type*** of permit issued, please provide the following information in specific detail:

A. The common permit name, along with a general description
   - ***Example***: Student Permit, issued to undergraduates on a quarterly basis

B. Original (or photocopies) of completed (voided) parking permits

C. Detailed information describing the permit numbers and their origin.
   - ***Example 1***: Student permit numbers are to be generated sequentially by the permit issuance system using a prefix and numeric sequence of AYYNNNNNN where A is the quarter F, W, or S; YY is the year, and NNNNNN is a six digit sequentially assigned by the system. Fall 99 permit examples include F99100289 and F99187542. Valid Winter 2000 and Spring 2000 permits would include W00198281 and S00726312.
   - ***Example 2***: Student permit numbers are to be keyed in by the operator during the permit purchase from the pre-printed permit stickers produced by the graphic arts department.

D. Detailed information regarding the rules governing the issuance of the permit, how long it is valid, if it is renewable.
   - ***Example***: The Student Permit can be issued only to students with current fee stickers and no outstanding parking violations. Student Permits are valid for 12-week quarterly increments and cannot be renewed – a new permit must be purchased for each quarter. The quarterly permit periods for the 1999-2000 academic year begin on September 2, 1999; January 6, 2000, and April 4, 2000

Note: In this example, student permits issued for summer sessions have different cost and validity rules, and as such are treated as a separate type of permit. Such a type would require a separate entry on the permit types list.

E. The base cost or fee, with detailed algorithms on how it is calculated if variants such as pro-rating is allowed.
   - ***Example***: The student permit fee is $125 per quarter. Pro-rated permits can be sold in tiered increments as follows: Weeks 1-3: 100% of base fee. Weeks 4-6: 75% of base fee. Weeks 7-9: 50% of base fee. Weeks 10–12: 25% of base fee.

F. Any additional fees or taxes to be tracked separately, with detailed algorithms on how these amounts are calculated.
   - ***Example***: Each student permit sold is assessed an additional $7.00 recreation

center fee. This fee is fixed and cannot be pro-rated.

G. Rules regarding refunds for each permit.
- ***Example***: Student permits may be returned for a pro-rated refund in tiered increments as follows: Weeks 1-3: 75% of base fee. Weeks 4-6: 50% of base fee. Weeks 7-9: 25% of base fee. Weeks 10-12: No refunded given after start of Week 10. The $7.00 recreation center fee cannot be refunded at any time.

H. A list detailing the data to be captured during the issuance / purchase process.
- ***Example***: During the recording of a permit sale, we need to capture the student name, student ID, vehicle plate number and state.

2. ***Please include any other information about the permit issuance, purchasing process, or tracking process at your location that would assist us in building a permit processing system that meets and exceeds your expectations.***

1 ASCII character set.
2 Fixed File Format.
3 Each field has an identified starting position and ending position.
4 Each record is on a separate line (Carriage-Return/Line Feed).
5 Field Format: N=Numeric;C=AlphaNumeric or Character. For other masks, data will be in exactly the same format as the mask.
6 All currency amounts will be 2 decimal places and will include a "." as the decimal indicator
7 All character fields are UPPER CASE only, right padded with spaces (ASCII 32) to their maximum length.
8 All numeric fields are left padded with 0's (ASCII 48)
9 Blank dates are denoted by ALL SPACES.
10 Client must mark all non-applicable (N/A) fields with "N/A" in the comments column. All fields designated N/A must be approved by ETEC. These fields will be left blank (spaces for character fields, 0's for numeric fields).

Item No	Description	Field Length	Field Format	AutoPROCESS Field Name	Position Start	Position End	Valid Values	Comments
1	ISSUE DATE	8	YYYYMMDD	IssueDate	1	8	0's if no date	Date Permit First Sold/Issued
2	ISSUE TIME	4	C	IssueTime	9	12	HHMM - blank if no time	Permit Issue Time (military format)
3	PERMIT NUMBER	10	C	IssueNo	13	22		Include character prefix/suffix if applicable. Rest is numeric.
4	EFFECTIVE DATE	8	YYYYMMDD	EffectiveDate	23	30	0's if no date	Date Permit Becomes Effective
5	EFFECTIVE TIME	4	C	EffectiveTime	31	34	HHMM - blank if no time	Time Permit Becomes Effective
6	EXPIRATION DATE	8	YYYYMMDD	ExpiryDate	35	42	0's if no date	Date Permit Expires
7	EXPIRATION TIME	4	C	ExpiryTime	43	46	HHMM - blank if no time	Time Permit Expires
8	RENEWAL DATE	8	YYYYMMDD	RenewalDate	47	54	0's if no date	Date Permit was last renewed
9	PERMIT STATUS	1	C	(will be mapped)	55	55	I=ISSUED,V=VOID, S=STOLEN, L=LOST	I permits considered valid, regardless of expiration status. V, S, and L permits are considered invalid.
10	Permit Status Date	8	YYYYMMDD	(will be mapped)	56	63		Date current permit status was set.
11	Clerk ID	4	C	ClerkID	64	67		Number/ID of clerk that issued the permit.
12	Clerk Name	15	C	ClerkName	68	82		Name of clerk that issued the permit.
13	DIVISION	2	C	Clerk Division/Dept	83	84		Division/Department Code of issuing clerk.
14	BATCH NUMBER	12	C		85	96		Entry batch number.

15	Permit BATCH SEQUENCE NUMBER	4	N		97	100		Sequence number within the data entry batch number.
16	Permit Type	30	C	PermitType_Name	101	130		Permit Type Name. This should come from a list of unique type names
17	ORIGINAL Permit Fee	7	9999.99	PermitFee	131	137		The orignal fee of the permit. Not necessarily what is due.
18	1st Vehicle Lic Plate Number	10	C	LicPlate	138	147	Left Justified, padded with spaces	Vehicle license plate authorized for this permit
19	1st Vehicle Lic Plate State	3	C	LicStateProv	148	150	CA=California, FL=Florida, etc	Must be valid US state or Canadian province code
20	1st Vehicle Lic Plate Type	3	C	VEH_PLATE_TYPE	151	153	AUT, etc.	
21	1st Vehicle Lic Exp Date	4	N(YYMM)	LicExpDate	154	157	0's if no date	Vehicle license expiration date
22	1st Veh Year	4	N (YYYY)	VehYear	158	161	0's if no date	
23	1st Veh Make	5	C	VehMake	162	166		
24	1st Veh Color	3	C	VehColor	167	169		
25	1st Veh Model	5	C	VehModel	170	174		
26	1st Veh VIN	20	C	VehVIN	175	194		
27	2nd Vehicle Lic Plate Number	10	C	LicPlate	195	204	Left Justified, padded with spaces	Vehicle license plate authorized for this permit
28	2nd Vehicle Lic Plate State	3	C	LicStateProv	205	207	CA=California, FL=Florida, etc	Must be valid US state or Canadian province code
29	2nd Vehicle Lic Plate Type	3	C	VEH_PLATE_TYPE	208	210	AUT, etc.	
30	2nd Vehicle Lic Exp Date	4	N(YYMM)	LicExpDate	211	214	0's if no date	Vehicle license expiration date
31	2nd Veh Year	4	N (YYYY)	VehYear	215	218	0's if no date	
32	2nd Veh Make	5	C	VehMake	219	223		
33	2nd Veh Color	3	C	VehColor	224	226		
34	2nd Veh Model	5	C	VehModel	227	231		
35	2nd Veh VIN	20	C	VehVIN	232	251		
36	3rd Vehicle Lic Plate Number	10	C	LicPlate	252	261	Left Justified, padded with spaces	Vehicle license plate authorized for this permit
37	3rd Vehicle Lic Plate State	3	C	LicStateProv	262	264	CA=California, FL=Florida, etc	Must be valid US state or Canadian province code
38	3rd Vehicle Lic Plate Type	3	C	VEH_PLATE_TYPE	265	267	AUT, etc.	

39	3rd Vehicle Lic Exp Date	4	N(YYMM)	LicExpDate	268	271	0's if no date	Vehicle license expiration date
40	3rd Veh Year	4	N (YYYY)	VehYear	272	275	0's if no date	
41	3rd Veh Make	5	C	VehMake	276	280		
42	3rd Veh Color	3	C	VehColor	281	283		
43	3rd Veh Model	5	C	VehModel	284	288		
44	3rd Veh VIN	20	C	VehVIN	289	308		
45	4th Vehicle Lic Plate Number	10	C	LicPlate	309	318	Left Justified, padded with spaces	Vehicle license plate authorized for this permit
46	4th Vehicle Lic Plate State	3	C	LicStateProv	319	321	CA=California, FL=Florida, etc	Must be valid US state or Canadian province code
47	4th Vehicle Lic Plate Type	3	C	VEH_PLATE_TYPE	322	324	AUT, etc.	
48	4th Vehicle Lic Exp Date	4	N(YYMM)	LicExpDate	325	328	0's if no date	Vehicle license expiration date
49	4th Veh Year	4	N (YYYY)	VehYear	329	332	0's if no date	
50	4th Veh Make	5	C	VehMake	333	337		
51	4th Veh Color	3	C	VehColor	338	340		
52	4th Veh Model	5	C	VehModel	341	345		
53	4th Veh VIN	20	C	VehVIN	346	365		
54	5th Vehicle Lic Plate Number	10	C	LicPlate	366	375	Left Justified, padded with spaces	Vehicle license plate authorized for this permit
55	5th Vehicle Lic Plate State	3	C	LicStateProv	376	378	CA=California, FL=Florida, etc	Must be valid US state or Canadian province code
56	5th Vehicle Lic Plate Type	3	C	VEH_PLATE_TYPE	379	381	AUT, etc.	
57	5th Vehicle Lic Exp Date	4	N(YYMM)	LicExpDate	382	385	0's if no date	Vehicle license expiration date
58	5th Veh Year	4	N (YYYY)	VehYear	386	389	0's if no date	
59	5th Veh Make	5	C	VehMake	390	394		
60	5th Veh Color	3	C	VehColor	395	397		
61	5th Veh Model	5	C	VehModel	398	402		
62	5th Veh VIN	20	C	VehVIN	403	422		
63	Permit Holder Last Name	40	C		423	462		
64	Permit Holder First Name	40	C		463	502		
65	Permit Holder Middle Name	40	C		503	542		

66	Permit Holder Birth Date	8	N YYYYMMDD		543	550	0's if no date	
67	Permit Holder Sex	1	C		551	551		
68	Permit Holder Drivers License	17	C		552	568	Left Justified, padded with spaces	
69	Permit Holder Drivers License State	3	C		569	571		
70	Permit Holder SSN	11	C		572	582		SSN or SIN number including dashes
71	Permit Holder Other ID #1	40	C		583	622		Other ID - student ID, employee ID, etc
72	Permit Holder Other ID #2	40	C		623	662		Other ID - student ID, employee ID, etc
73	Permit Holder 1st Address Type	6	C		663	668		Type of Address that follows: LOCAL, MAIL, PERM, etc
74	1st Address Street	40	C		669	708		
75	1st Address City	20	C		709	728		
76	1st Address State	3	C		729	731		State/Province of permit holder address
77	1st Address Postal Code	6	C		732	737		
78	1st Address Home Phone	15	C		738	752		
79	1st Address Work Phone	15	C		753	767		
80	1st Address Fax	15	C		768	782		
81	1st Address Email	40	C		783	822		
82	2nd Address Street	40	C		823	862		
83	2nd Address City	20	C		863	882		
84	2nd Address State	3	C		883	885		State/Province of permit holder address
85	2nd Address Postal Code	6	C		886	891		
86	2nd Address Home Phone	15	C		892	906		

87	2nd Address Work Phone	15	C		907	921		
88	2nd Address Fax	15	C		922	936		
89	2nd Address Email	40	C		937	976		
90	Late Fees Due	7	N (9999.99)		977	983		Additional fee already imposed because the permit was not paid on time
91	NSF Fees Due	7	N (9999.99)		984	990		Additional fee already imposed because the a check was bounced when paying for this permit
92	Amount Paid	7	N (9999.99)		991	997		Total amount already paid on this permit.
93	Total Due	7	N (9999.99)		998	1004		Total amount due on this permit. Should be the sum of Permit Fee, Late Fee Due and NSF Fees Due less the total amount paid.

AutoPROCESS
(Backup/Restore Procedures for Personal Oracle Only)
31-Mar-99

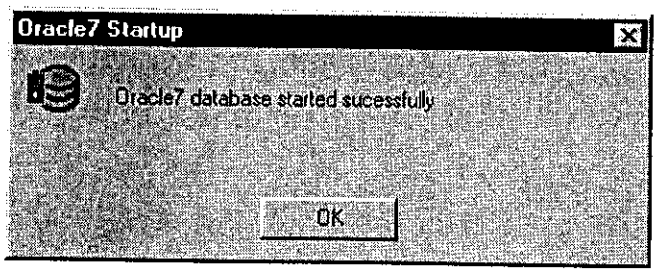
- **Overview**

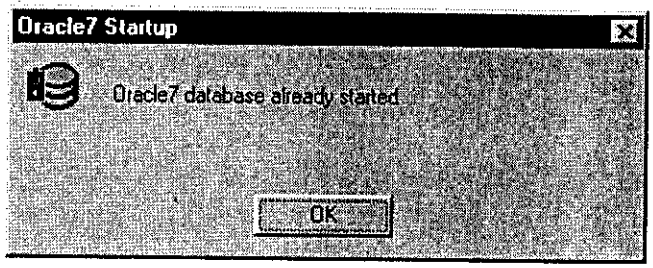
AutoPROCESS, running with Personal Oracle, does not have Oracle database backup functionality, therefore the end-user shall be responsible for database maintenance, including backups and restorations. The following procedures simplify the process required to backup the Oracle database. Please note that ***backups and restorations must be handled via tools supplied by Oracle***. ***Simply copying files via Windows Explorer will not produce a usable backup.***

– Backup Procedures –

- **Step 1 – Start Oracle**

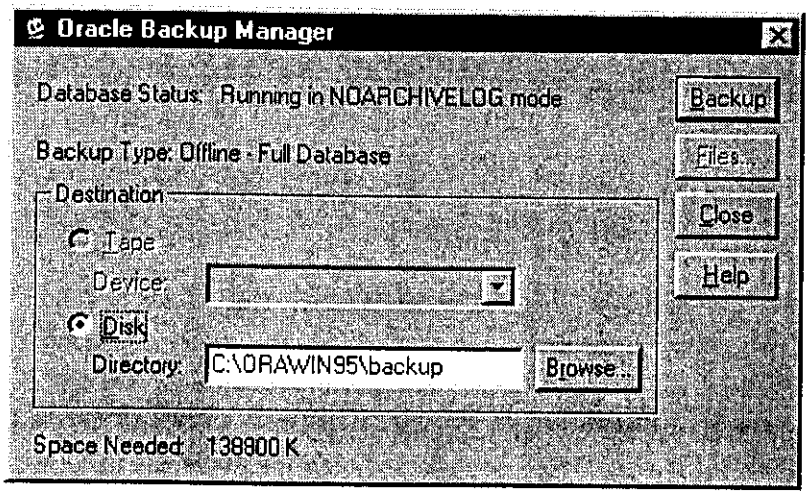
Personal Oracle must be running prior to backing up the database. To ensure that Personal Oracle is started, click on the **Start Database** icon found in the **Personal Oracle for Windows 95** program group. After performing this step, you should see either message shown below:





- **Step 2 – Perform Backup**

Run **The Backup Manager** found in the **Personal Oracle for Windows 95** program group. The "Database Status" should be "Running in NOARCHIVELOG mode" and the "Backup Type" should be "Offline – Full Database". Enter the desired backup location in the Directory edit box (or browse to the destination). Click on **Backup** when you are ready to complete the backup process. A progress bar will be shown during the backup process. A message will tell you when the backup is complete. ***NOTE, this file should be copied to tape or another destination for safekeeping. It is your insurance should your computer system fail.***

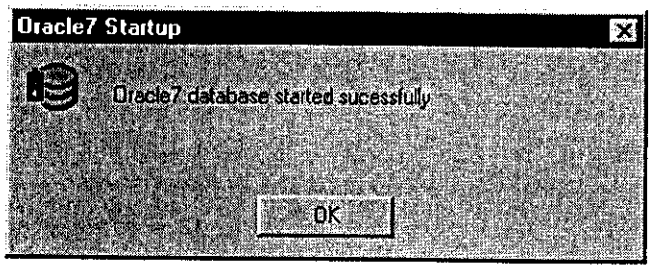


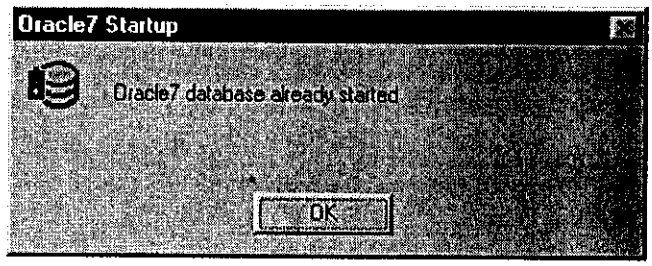
– Restoration Procedures –

Note: In the unfortunate event of a system failure, the Personal Oracle database can be restored from the backups. It is not necessary to recover the database unless there is a problem.

• Step 1 – Start Oracle

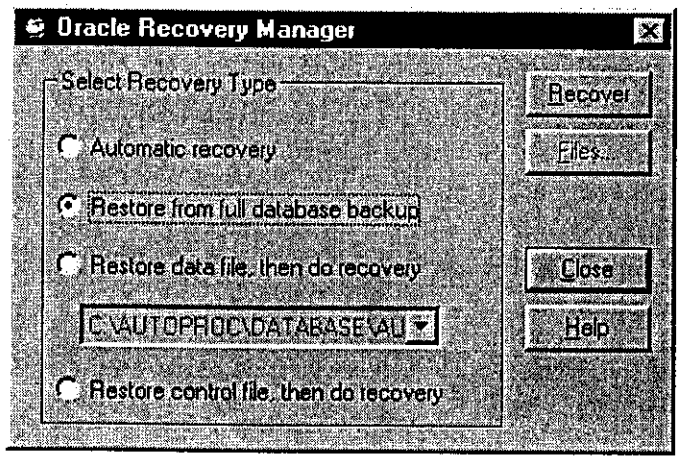
To ensure that Personal Oracle is started, click on the **Start Database** icon found in the **Personal Oracle for Windows 95** program group. After performing this step, you should see either message shown below:



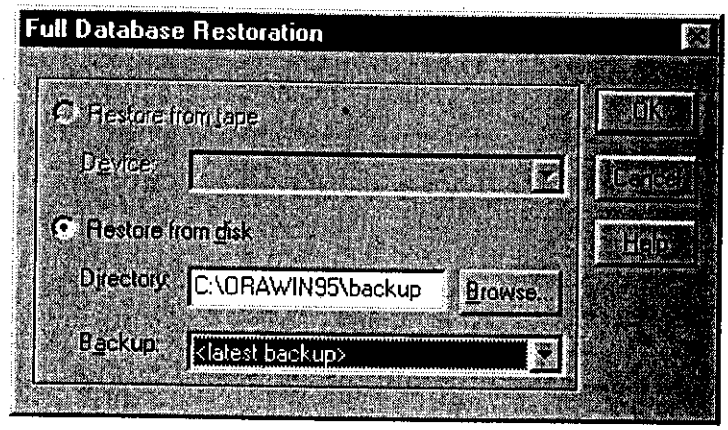


• Step 2 – Perform Restoration

Run **The Recovery Manager** found in the **Personal Oracle for Windows 95** program group. Select "Restore from full database backup" and then click on **Recover** as shown below:



Select **<latest backup>** from the appropriate directory and click on **OK** when you are ready to perform the restoration. A message will tell you when the restoration is complete.



AutoPROCESS Included Notices

Rev C

August 1999

AutoPROCESS has extensive capabilities for generating Notices and Correspondence letters. It contains a built in document editor and form generator, allowing virtually unlimited numbers of different documents to be generated, with the capability of inserting any field from the database into these documents. Noticing requires defining a set of criteria that must be met by each record before it would be included in an export file that can then be merged with a corresponding notice document. The most powerful method of generating notices and correspondence is to configure AutoPROCESS to generate export files, with appropriate data elements from the database, in a particular order. Then create the fixed text using a popular word processing program and it's mail merge function to generate the notices. This method enhances AutoPROCESS's powers by utilizing the full range of capabilities of today's word processing programs. This method provides the additional benefit of off loading potentially time restrictive activities to other computers, freeing AutoPROCESS's processing powers for more critical tasks.

Although AutoPROCESS has a document editor, it's capabilities are somewhat limited and they do not compare favorably with the features of modern word processing programs. ***The AutoPROCESS editor DOES NOT allow any bit image graphics, has limited font selection, no special features like underlining, bold, or italic and colors are not supported on the printed document.*** For these obvious reasons we highly recommend using a word processing program, with it's mail merge functions, to handle your document generation requirements.

Enforcement Technology includes the configuration of ONE export file, with a corresponding form definition and merging of these to produce a completed document, in the base price of the Correspondence Module. The using agency must provide a clear, written definition the notice file (export file) generation parameters, and a sample document with clear designation of where data elements from the AutoPROCESS database are to be inserted. Additional notices or correspondence documents can be defined and generated by the AutoPROCESS user.

Requests to generate additional notices or correspondence documents will be reviewed and a quotation will be submitted. A quotation can only be submitted after a complete, concise, written description of the notice file (export file) generation parameters, and a sample document with clear designation of where data elements from the AutoPROCESS database are to be inserted, are provide to Enforcement Technology.

The information and requirements listed above for notice and correspondence documents are understood and are accepted.

_____	_____
For: _____	For: Enforcement Technology
Date:_____	Date:_____

AutoPROCESS Data Conversion Requirements

Rev B.

September 29, 1999

Conversion of data from an existing database into the AutoPROCESS database is affected by a variety of factors. The most important aspects are, the status and the historical information required for the data to be converted. Since each system typically tracks statuses in different fashions and historical information varies widely in both content and format, Enforcement Technology can convert your existing data into AutoPROCESS accessible format under the following guidelines.

1. Open citations that have a balance greater than zero will be converted.
2. Closed, zero balance, citations with closed dates not exceeding three months prior to conversion will be converted. (See note below regarding tickets closed over three months prior to conversion.)
3. Any citation with a credit balance will not be converted. Refunds on these citations should be handled outside of AutoPROCESS.
4. Only a current "snap shot" of each citation will be converted. No historical data will be transferred. For example we will convert citations that have been partially paid, such as a citation with an original fine of $20.00 and $10.00 has been paid. However we will not record any historical information about this ticket such as when or how any payments were made. Any noticing that has occurred will be recorded only by date. For example if two notices have been sent we will record the date each was sent and continue processing in the logical progression based on the date the second notice was sent. We will not record the contents of any notice or try to reissue any notices. Any correspondence, beyond standard notices, will not be documented.
5. Court or hearing scheduling will be carried forward as is without converting any historical information about what or why past hearing were scheduled. We will record, on individual citations, future court/hearing dates but these dates will not be transferred into the scheduling module. This means the court scheduling module will not reflect any dates or hearing times converted from transferred data and therefore scheduling conflicts may occur when scheduling appearances using AutoPROCESS's court scheduling functions.

Data can be converted, as stated above, only if each citation to be transferred to AutoPROCESS conforms to the predefined format that will be provided by Enforcement Technology. Some fields may not be available or may not be meaningful in all applications, so only those fields designated as required must contain relevant data for the record to be converted into AutoPROCESS. If conversion of existing data is required a copy of the export file format with the required field definitions will be provided by Enforcement Technology upon request. This document must be approved in writing by Enforcement Technology and your agency before conversion can be accomplished. ***Any alternate format, additional data, data not conforming to the above standards or requests to convert other fields will be reviewed and a***

quotation for the conversion effort will be submitted.

Accessing tickets closed over three months prior to conversion:
If there is or will be a need to access tickets closed over three months prior to conversion, these tickets must also be included in the conversion file. They will not, however, be part of the initial conversion, and hence they will not be immediately accessible through the AutoPROCESS software. To access one of these tickets, the ticket will have to first be located in the conversion file (using a stand-alone program provided by ETEC), then imported into AutoPROCESS. After it has been imported, the ticket will be accessible through the AutoPROCESS software just like any other ticket in the system.

Standard Conversion File Format

Rev C

September 1999

1) ASCII character set.

2) Each field padded to maximum length w/ spaces (ASCII 32).

3) Separate each record with a carriage-return/line feed (ASCII 13, 10)

4) AutoPROCESS Field Name is for internal use only.

5) Field Format: A=AlphaNumeric; For other masks data should be in exactly the format as the mask. For example: a Date with value "1 MAY 98", mask "CCYYMMDD" would come across as "19980501". A Time with the value "6:15 PM", mask "HHMM", would come across as "1815". A Number with the value "50", mask "999999.99", would come across as "50.00".

6) Leave all non-existing fields blank. For example, if you only have one violation, leave all fields pertaining to violation 2 and 3 blank.

7) Maximum of 1000 tickets per file. Files should share the same base name ("TICKET"), and have incremented file extensions. For example, if there are 2200 tickets to convert, there will be 3 files: TICKET.001, TICKET.002, TICKET.003.

8+B115) It is the clients responsibility to notify ETEC if there are any critical, non-standard fields that are used in the legacy processing system but are not included in this specification.

Item #	Description	Field Length	Field Format	AutoPROCESS Field Name	Start Position	Stop Position	Valid Values	Comments
Ticket Record								
1	Ticket Number	12	A	ISSUENO	1	12	Any Number	Will include any ticket prefix as well.
2	Issue Date	8	CCYYMMDD	ISSUEDATE	13	20	0's if no date	Citation Issue Date
3	Issue Time	4	HHMM	ISSUETIME	21	24		Citation Issue Time
4	Officer Number	14	A	OFFICERBADGE	25	38		
5	Officer Name	20	A	OFFICERNAME	39	58		Name that corresponds to Officer Badge
6	Sector 1	10	A	SECTOR1	59	68		Primary sector (Agency, Department, etc.) ticket was written under.
7	Sector 2	10	A	SECTOR2	69	78		Secondary sector (Area, District, Beat, Zone, etc.) ticket was written under.
8	Sector 3	10	A	SECTOR3	79	88		3rd Sector (Area, District, Beat, Zone, etc.) ticket was written under
9	License Plate Number	10	A	LICPLATE	89	98		Only the license goes here, no VINs. Leave blank if no license on Ticket.
10	Vehicle License State	5	A	LICSTATEPROV	99	103		

11	License Expiration Date	8	CCYYMMDD	LICEXPDATE	104	111	0's if no date	Stored by AutoPark in a text field so not guaranteed to be a valid date.
12	License Plate Type	5	A	VEH_PLATE_TYPE	112	116	AUT, etc.	
13	VIN	20	A	VIN	117	136		Only the VIN goes here, no licenses. Leave blank if no VIN on ticket.
14	Vehicle Make	5	A	MAKE	137	141		
15	Vehicle Model	10	A	MODEL	142	151		
16	Vehicle Style	15	A	STYLE	152	166	2 DOOR, etc.	
17	Vehicle Primary Color	5	A	COLOR1	167	171		Primary Color of Vehicle
18	Vehicle Secondary Color	5	A	COLOR2	172	176		Secondary Color of Vehicle (optional)
19	Vehicle Year	4	A	VEH_YEAR_MFG	177	180		Vehicle Model Year
20	DMV Make	10	A	DMVMAKE	181	190		Vehicle Make - From DMV
21	DMV License	10	A	USER_TEXT_FIELD4	191	200		Vehicle License - From DMV
22	DMV Vin Number	12	A	USER_TEXT_FIELD5	201	212		V ehicle VIN - From DMV
23	Location 1	50	A	LOCATIONDESC1	213	262		Location of where ticket was written. If location is broken up into Block, Street, Descriptor etc. then concatenate these fields together into this field.
24	Location 2	50	A	LOCATIONDESC2	263	312		Secondary Location where ticket was written
25	Meter Number	10	A	METERNUMBER	313	322		
26	Permit Number	20	A	PERMITNUMBER	323	342		
27	Violation 1 Code	15	A	VIOCODE1	343	357		Code for 1st Violation
28	Violation 2 Code	15	A	VIOCODE2	358	372		Code for 2nd Violation
29	Violation 3 Code	15	A	VIOCODE3	373	387		Code for 3rd Violation
30	Violation 1 Sub-Code	15	A	VIOTYPE1	388	402		Sub-Code for 1st Violation
31	Violation 2 Sub-Code	15	A	VIOTYPE2	403	417		Sub-Code for 2nd Violation
32	Violation 3 Sub-Code	15	A	VIOTYPE3	418	432		Sub-Code for 3rd Violation
33	Violation 1 Fine	9	999999.99	VIOFINE1	433	441		Fine Amount for 1st Violation
34	Violation 2 Fine	9	999999.99	VIOFINE2	442	450		Fine Amount for 2nd Violation
35	Violation 3 Fine	9	999999.99	VIOFINE3	451	459		Fine Amount for 3rd Violation
36	Violation 1 Description	80	A	VIODESC1	460	539		Description for 1st Violation
37	Violation 2 Description	80	A	VIODESC2	540	619		Description for 2nd Violation
38	Violation 3 Description	80	A	VIODESC3	620	699		Description for 3rd Violation
39	Violation 1 Extra Description	80	A	VIOEXTRADESC1	700	779		Extra Description for 1st Violation
40	Violation 2 Extra Description	80	A	VIOEXTRADESC2	780	859		Extra Description for 2nd Violation
41	Violation 3 Extra Description	80	A	VIOEXTRADESC3	860	939		Extra Description for 3rd Violation

42	Violation 1 Late Fee 1	9	999999.99	VIO1LATEFEE1	940	948		1st Late Fee for Violation1
43	Violation 2 Late Fee 1	9	999999.99	VIO2LATEFEE1	949	957		1st Late Fee for Violation2
44	Violation 3 Late Fee 1	9	999999.99	VIO3LATEFEE1	958	966		1st Late Fee for Violation3
45	Violation 1 Late Fee 2	9	999999.99	VIO1LATEFEE2	967	975		2nd Late Fee for Violation1
46	Violation 2 Late Fee 2	9	999999.99	VIO2LATEFEE2	976	984		2nd Late Fee for Violation2
47	Violation 3 Late Fee 2	9	999999.99	VIO3LATEFEE2	985	993		2nd Late Fee for Violation3
48	Violation 1 Late Fee 3	9	999999.99	VIO1LATEFEE3	994	1002		3rd Late Fee for Violation1
49	Violation 2 Late Fee 3	9	999999.99	VIO2LATEFEE3	1003	1011		3rd Late Fee for Violation2
50	Violation 3 Late Fee 3	9	999999.99	VIO3LATEFEE3	1012	1020		3rd Late Fee for Violation3
51	Remark 1	80	A	REMARK1	1021	1100		Remark 1 on citation
52	Remark 2	80	A	REMARK2	1101	1180		Remark 2 on citation
53	Remark 3	80	A	USER_TEXT_FIELD6	1181	1260		Remark 3 on citation
54	Private Note 1	80	A	USER_TEXT_FIELD7	1261	1340		Non-printed remark 1
55	Private Note 2	80	A	USER_TEXT_FIELD8	1341	1420		Non-printed remark 2
56	Batch Number	20	A	BATCHID	1421	1440		Cite Entry Batch Number
57	AutoCITE Unit Number	10	A	UNITSERIALNUMBER	1441	1450		AutoCITE Unit Serial Number for AutoISSUE citations
58	User Defined 1	80	A	USER_TEXT_FIELD13	1451	1530		Used for field needed but not listed above (Time Chalk, etc.)
59	User Defined 2	80	A	USER_TEXT_FIELD14	1531	1610		Used for field needed but not listed above (Time Chalk, etc.)
60	User Defined 3	80	A	USER_TEXT_FIELD15	1611	1690		Used for field needed but not listed above (Time Chalk, etc.)
61	R/O Last Name	40	A	LASTNAME	1691	1730		Last Name only
62	R/O First Name	40	A	FIRSTNAME	1731	1770		First Name only
63	R/O Middle Name	40	A	MIDDLENAME	1771	1810		Middle Name only
64	R/O Name Suffix	20	A	NAMESUFFIX	1811	1830		Name Suffix only (jr, sr, etc.)
65	R/O Address 1	30	A	ADDRESS1	1831	1860		1st line of R/O address
66	R/O Address 2	30	A	ADDRESS2	1861	1890		2nd line of R/O address
67	R/O City	20	A	CITY	1891	1910		
68	R/O County	20	A	COUNTY	1911	1930		
69	R/O State	7	A	STATEPROV	1931	1937		
70	R/O Zip Code	8	A	POSTALCODE	1938	1945		
71	R/O Home Phone	15	A	HOMEPHONE	1946	1960		
72	R/O Work Phone	15	A	WORKPHONE	1961	1975		
73	R/O Date Of Birth	8	CCYYMMDD	BIRTHDATE	1976	1983	0's if no date	
74	R/O Sex	1	A	SEX	1984	1984	M, F, or U	
75	R/O Drivers License Number	20	A	DRIVERS_LICENSE_NUMBER	1985	2004		
76	R/O Drivers License State	3	A	DRIVERS_LICENSE_STATE	2005	2007		

77	R/O Social Security Number	11	A	SSN	2008	2018		
78	R/O Inquiry Request Date	8	CCYYMMDD	ROINQSTATUS and ROINQSTATUSDATE	2019	2026	0's if no date	Date R/O information was requested
79	R/O Inquiry Response Date	8	CCYYMMDD	ROINQSTATUS and ROINQSTATUSDATE	2027	2034	0's if no date	Date received information from R/O Inquiry request
80	R/O Inquiry Reject Date	8	CCYYMMDD	ROINQSTATUS and ROINQSTATUSDATE	2035	2042	0's if no date	Date Request for R/O Information was rejected
81	Total Bail Amount	9	999999.99	TOTALFINES	2043	2051		Total bail of all violations (sum of all fines)
82	Total Late Fees Added	9	999999.99	TOTALLATEFEES	2052	2060		Total Late Fees added to this citation
83	Total NSF Fees Added	9	999999.99	TOTALNSF	2061	2069		Total NSF Fees added to citation
84	Total Court Fees Added	9	999999.99	ADMINFEE	2070	2078		Total Court Fees added to this citation
85	Total DMV Fees Added	9	999999.99	COPYFEE	2079	2087		Total DMV Fees added to this citation
86	Total Other Fees Added	9	999999.99	OTHERFEE	2088	2096		Any other fees added to this citation
87	Total Paid	9	999999.99	TOTALCASHPAID	2097	2105		Total of all money paid on this citation
88	Total Waived	9	999999.99	TOTALWAIVED	2106	2114		Total amount waived from the amount due
89	Total Dismissed	9	999999.99	TOTALDISMISSED	2115	2123		Total amount Dismssed from citation. (should equal amount due at time of dismissal)
90	Total Voided	9	999999.99	TOTALVOIDED	2124	2132		Total amount Voided from citation. (should equal amount due at time of voiding)
91	Total Refunded	9	999999.99	TOTALREFUNDED	2133	2141		Total refunded amount on citation
92	Balance Due	9	999999.99	AMOUNTDUE	2142	2150	Will be negative if there is an overpayment	Equals Total Fines + Late Fees + NSF Fees + Court Fees + DMV Fees + Other Fees - Total Paid - Total Waived - Total Dismissed - Total Voided - Total Refunded
93	Due Date	8	CCYYMMDD	DUEDATE	2151	2158	0's if no date	Date Payment on citation is due
94	Late Fee 1 Add Date	8	CCYYMMDD	LATEFEE1SETDATE	2159	2166	0's if no date	Date 1st Late Fee added
95	Late Fee 2 Add Date	8	CCYYMMDD	LATEFEE2SETDATE	2167	2174	0's if no date	Date 2nd Late Fee added
96	Late Fee 3 Add Date	8	CCYYMMDD	LATEFEE3SETDATE	2175	2182	0's if no date	Date 3rd Late Fee added
97	Late Notice 1 Send Date	8	CCYYMMDD	LATENOTICE1STATUSDATE	2183	2190	0's if no date	Date 1st Notice was printed
98	Late Notice 1 Due Date	8	CCYYMMDD	LATENOTICE1DUEDATE	2191	2198	0's if no date	Due Date printed on 1st Notice

99	Late Notice 2 Send Date	8	CCYYMMDD	LATENOTICE2STATUSDATE	2199	2206	0's if no date	Date 2nd Notice was printed
100	Late Notice 2 Due Date	8	CCYYMMDD	LATENOTICE2DUEDATE	2207	2214	0's if no date	Due Date printed on 2nd Notice
101	Late Notice 3 Send Date	8	CCYYMMDD	LATENOTICE3STATUSDATE	2215	2222	0's if no date	Date 3rd Notice was printed
102	Late Notice 3 Due Date	8	CCYYMMDD	LATENOTICE3DUEDATE	2223	2230	0's if no date	Due Date printed on 3rd Notice
103	DMV Hold Request Date	8	CCYYMMDD	DMVHOLDSTATUS and DMVHOLDSTATUSDATE	2231	2238	0's if no date	Date DMV Hold was requested
104	DMV Hold Request Reject Date	8	CCYYMMDD	DMVHOLDSTATUS and DMVHOLDSTATUSDATE	2239	2246	0's if no date	Date Request for DMV Hold was rejected
105	DMV Hold Placed-on Date	8	CCYYMMDD	DMVHOLDSTATUS and DMVHOLDSTATUSDATE	2247	2254	0's if no date	Date DMV Hold was actually placed
106	DMV Hold Remove Request Date	8	CCYYMMDD	DMVHOLDSTATUS and DMVHOLDSTATUSDATE	2255	2262	0's if no date	Date remove from DMV Hold was requested
107	DMV Hold Remove Reject Date	8	CCYYMMDD	DMVHOLDSTATUS and DMVHOLDSTATUSDATE	2263	2270	0's if no date	Date remove from DMV Hold was rejected
108	DMV Hold Remove Date	8	CCYYMMDD	DMVHOLDSTATUS and DMVHOLDSTATUSDATE	2271	2278	0's if no date	Date DMV Hold was removed
109	Sent to Collections Date	8	CCYYMMDD		2279	2286	0's if no date	Date ticket was sent to a collection agency
110	Collection Agency Name	1	A		2287	2287		One letter code for name of collection agency to which ticket was submitted
111	Citation Entered Date	8	CCYYMMDD	RECCREATIONDATE	2288	2295	0's if no date	Date citation entered into the system
112	Current Ticket Status	2	A	RECSTATUS and RECCLEAREDREASON	2296	2297	OP=Open VO=Void DI=Dismissed SP=Suspended PD=Normal Paid DP=Paid at DMV CP=Paid at Court OS=Outside Processed	Current status of ticket.
113	Current Ticket Status Date	8	CCYYMMDD	RECSTATUSDATE and RECCLEAREDREASONDATE	2298	2305	0's if no date	Status date that corresponds to the above field. This is the date the status occurred.
114	Review Request Date	8	CCYYMMDD	REVIEWCODE and SYS_TRANSACTION_DATE (courtdetail)	2306	2313	0's if no date	Date Review was requested

115	Review Date	8	CCYYMMDD	REVIEW_DATE	2314	2321	0's if no date	Date of Review
116	Review Time	4	HHMM	REVIEW_TIME	2322	2325		Time of Review
117	Review Upheld Date	8	CCYYMMDD	REVIEWCODE and SYS_TRANSACTION_DATE (courtdetail)	2326	2333	0's if no date	Date citation upheld at Review
118	Review Dismiss Date	8	CCYYMMDD	REVIEWCODE and SYS_TRANSACTION_DATE (courtdetail)	2334	2341	0's if no date	Date citation dismissed at Review
119	Review Outcome Remarks	8	CCYYMMDD	STATUSREASON (courtdetail)	2342	2349	0's if no date	Remarks associated with Review outcome
120	Hearing/Trial Request Date	8	CCYYMMDD	TRIALCODE and SYS_TRANSACTION_DATE (courtdetail)	2350	2357	0's if no date	Date Trial or Hearing was requested
121	Hearing/Trial Date	8	CCYYMMDD	COURTDATE	2358	2365	0's if no date	Date of Trial or Hearing
122	Hearing/Trial Time	4	HHMM	COURTTIME	2366	2369		Time of Trial or Hearing
123	Hearing/Trial Conviction Date	8	CCYYMMDD	TRIALCODE and SYS_TRANSACTION_DATE (courtdetail)	2370	2377	0's if no date	Date citation was convicted at Trial or Hearing
124	Hearing/Trial Dismiss Date	8	CCYYMMDD	TRIALCODE and SYS_TRANSACTION_DATE (courtdetail)	2378	2385	0's if no date	Date citation was dismissed at Trial or Hearing
125	Hearing/Trial Outcome Remarks	80	A	STATUSREASON (courtdetail)	2386	2465		Remarks associated with Hearing/Trial outcome

AutoPROCESS Detailed Payments Importation Module

Rev C

August 1999

AutoPROCESS has extensive capabilities to import and record detailed payment information about payments accepted on systems other than AutoPROCESS. For example, if parking ticket payments are taken on a cashiering system connected to a citywide network for accounting purposes, those payments can be exported from the cashiering system and imported into AutoPROCESS. By doing so, each ticket can be updated in AutoPROCESS to accurately reflect the outstanding balance. This is imperative to insure that functions in AutoPROCESS initiated by analysis of outstanding balances (such as sending notices, holds, and scheduling court appointments) perform properly based on correct balance information.

Payments from external sources can be ***imported only if the payment file conforms to the layout defined below***. This document must be approved in writing by Enforcement Technology and your agency before external payments can be imported into AutoPROCESS.

Any alternate format, additional data, data not conforming to these standards, or requests to import other fields will be reviewed and a quotation for the customization effort will be submitted.

Detailed Payment Importation File Format

Field Name	Length	Type, Format	Comment
Ticket Number	15	A/N	Up to a 15-character number can be accepted. Right-padded with spaces.
Payment Date	8	MMDDYYYY	This is the date the payment should be effective. Must be a valid date.
Payment Amount	7 - OR - 6	9999.99 - OR - 999999	Amount with defined decimal place Amount with 2 implied decimal places Either format left padded with zeros.
Payment Type	15	Alpha	This must match one of the following payment types. Any other values will cause the payment record to be rejected. Acceptable values: 'CHECK', 'CASH', 'CREDIT', 'MONEY ORDER', 'DEBIT CARD'. Right-padded with spaces.
Payment Notes	20	Alpha	This is a general note field. This will be added to the comments about this Payment. For example Check Number 6789, VISA, Debit, MC, Authorization 12345, etc. Right-padded with spaces.

Payment Batch Number	6	Numeric	Reference Batch Number for the payment. Left padded with zeros.
Payment Batch Sequence Number	4	Numeric	Along with the Payment Batch Number this uniquely defines the transaction and provides a reference number for source of this payment. Left-padded with zeros.
Payment Source	11	A/N	This must come from a list of predetermined values that ***must be negotiated***. Any value not on the predetermined list will cause the payment record to be rejected. Examples include 'BANK1', 'IVR', 'DMV'. Right-padded with spaces.
Vehicle License Plate	20	A/N	The License Plate number for this ticket. This will be used to verify proper application of this payment. Right-padded with spaces.
Vehicle License State	2	Alpha	The License Plate State for this ticket. This will be used to verify proper application of this payment.
Record Delimeter	2	CR / LF	Carriage Return / Line Feed to indicate end of record. ASCII 13, ASCII 10

The file format shown above along with the requirements listed on page one are accepted.

_____ _____

For: _____ For: Enforcement Technology

Date:_____ Date:_____

AutoPROCESS Imaging Database Interface Module

Rev C

December 1998

AutoPROCESS has the capability to interface with a separate image database, providing the ability to display images associated with a particular citation. Operationally, images are accessible from the Ticket Inquiry Results Screen. Selecting the *View Details* button, and then the *Images* folder presents a list of images, with a description and image creation date, associated with the displayed ticket. These images must be TIFF-formatted images, stored in an Oracle Database, with an associated Image Index Table to enable AutoPROCESS to retrieve them. Once chosen AutoPROCESS will retrieve the image from the network and display it in the AutoPROCESS internal viewer. The image is view only with no editing capabilities.

The following detailed description specifies the precise structure, location, and format of the image database and the Image Index table required for AutoPROCESS to access images. ***Any alternate format, additional data, data not conforming to the above standards or requests to retrieve and display other images will be reviewed and a quotation for the customization effort will be submitted.***

□

1. An "Image Index Table" must exist in an ORACLE database. The required fields include (but are not limited to) the following:

Field	Attribute	Comment
UNIQUEKEY	Numeric	Unique primary key generated by Oracle
AGENCY	A/N (40)	Stores an agency/client name
ISSUENO	A/N (20)	This is the Ticket number. IssueNo and Agency will be used to distinguish between duplicate ticket numbers.
DOCUMENT DATE	Date	Date printed on scanned document
DOCUMENT TYPE	A/N(50)	Brief description of document
IMAGE PATH AND NAME	A/N (255)	Full path and name of image file as stored in Oracle Image Database. The path shall include the complete NETWORK path and file name of an image stored in .TIF format (Ticket Image, Check, etc.)
ENTRY DATE	Date	Date the image was scanned/entered into the table

ENTRY CLERK	A/N (10)	ID or Name of operator who scanned/entered image information into the table.

2. An Oracle user with Read Only rights to the Image Index Table described above must be created and the User Name and Password allowing access to this table must be made available to Enforcement Technology, Inc. to be utilized within AutoPROCESS.

3. The Image_Path_And_Name field, (described in the table above) must specify a complete network path rather than a drive letter. For example, this field may have the value

"\\SERVER1\IMAGES\1001ABC.TIF",
but

"C:\IMAGES\1001ABC.TIF" would be invalid.

4. AutoPROCESS users that have rights to the imaging module must have Read Only network rights to the files and folders where the .TIF images are stored.

5. AutoPRCCESS will only have access to read from the Image Index Table and actual image files. AutoPROCESS will not have the ability to write, maintain, or delete index information or image files. The accuracy of the image data, backups, archival, etc. are the sole responsibility
of the creator of the image database and the Image Index Table.

6. The creator, of the image database and the Image Index Table, is responsible for adding the image's date, description, file location,
entry date, operator ID, corresponding ticket number(s), agency and all other information contained in Image Index Table.

The following SQL statements are an example of how an Image Index Table, that would be acceptable for use AutoPROCESS, might be created.

```
CREATE TABLE IMAGE_INDEX_TABLE
        (UNIQUEKEY NUMBER NOT NULL,
         AGENCY VARCHAR2(40),
         ISSUENO VARCHAR2(20),
         DOCUMENT_DATE DATE,
         DOCUMENT_TYPE VARCHAR2(50),
         IMAGE_PATH_AND_NAME VARCHAR2(255),
         ENTRY_DATE DATE,
         ENTRY_CLERK VARCHAR2(10),
CONSTRAINT IMAGE_INDEX_TABLE_PK PRIMARY KEY (UNIQUEKEY)
         USING INDEX TABLESPACE AUTOPROC_IMAGES_INDEX
         PCTFREE 5 )
         TABLESPACE AUTOPROC_IMAGES_DATA
         PCTFREE 10
   STORAGE ( INITIAL 96K NEXT 1M
         MINEXTENTS 1 MAXEXTENTS UNLIMITED
           PCTINCREASE 0 );
;
COMMIT;
;
CREATE SEQUENCE IMAGE_INDEX_TABLE_NO_GEN NOCACHE START
WITH 1 INCREMENT BY 1;
/*   */
CREATE OR REPLACE TRIGGER IMAGE_INDEX_TABLE_INSTRIG
BEFORE INSERT ON IMAGE_INDEX_TABLE
FOR EACH ROW
BEGIN
   SELECT IMAGE_INDEX_TABLE_NO_GEN.NextVal
   INTO :NEW.UniqueKey
   FROM DUAL;
END;
/
COMMIT;
```

The format shown above along with the requirements listed are accepted.

_____	_____
For: _____	For: Enforcement Technology
Date:_____	Date:_____

AutoPROCESS has an interface to the CallPRO IVR system. This interface provides direct online interactive searching for citation records and recordation of payments against records currently in the AutoPROCESS database as well as creation of skeletal records allowing payments to be recorded towards citations not yet available in the AutoPROCESS database.

Either the citation number or the license number with the state can initiate searching the database for citation records. Citation records are returned one record at a time and each record must be specifically requested sequentially. All records matching an initial search request must be retrieved sequentially during that session without interruption from another search request.

Any alternate format, alternate IVR system, additional data, procedures not conforming those listed below, or requests to search the database or record payments by other methods will be reviewed and a quotation for the customization effort will be submitted.

Technical Description

There are six Oracle stored procedures available to inquire on, and apply payments to, the AutoPROCESS database. Below is a technical overview followed by the detailed description of the six stored procedures. All of the procedures are to be invoked via a direct connection to the AutoPROCESS Oracle database.

Technical Overview

*The stored procedures are part of an Oracle package "**Parkcite_IVR_Package**", which must be included in the calling declaration. There are two separate methods to find tickets in the database. The first searches by ticket number, the second searches by license plate and state. While the two searches differ in the parameters to search by, they share the following characteristics:*

- Both search methods require that an "Agency Code" be provided as an additional search parameter.

The agency code is required because the ticket number alone is not enough information to uniquely identify a ticket. Also, for accounting purposes, a single payment cannot be applied to tickets issued by different agencies.

- Both search methods return a "RecordKey" for each record found.

While this number is of no value to the caller, ***it must be used to identify the ticket to apply the payment toward****. This number uniquely identifies*

each ticket in the database.

- Both search methods have two procedures.

The first procedure performs the initial search, the second procedure is called successively to gather each additional matching ticket. Within a stored procedure, there is no way to return a result set that can vary in size. Therefore, the procedure returns one record at a time.

NOTE: Only one search can be performed at a time (per database connection). Only after the entire result set has been returned, via calls to the appropriate "Find Next" routine, can a new search be initiated. (The initial search destroys the results of any existing search.)

When a ticket is found, a payment can be applied to it using the PayKnownTicket *procedure. If the ticket cannot be found, the user can create a skeletal ticket record by supplying the ticket number, vehicle plate and state to the* PayUnknownTicket *procedure.*

Stored procedure definitions

For each procedure defined below, the formal parameter *AutoPROCESS_response* is included to allow the passing and display of the result in a consistent manner.

1a) Search for a ticket by ticket number.

```
ParkCite_IVR_Package.SearchByIssueNo(
        pAgencyCode IN VARCHAR2, pIssueNo IN VARCHAR2,
        oIssueDateTime OUT DATE
        oLicStateProv OUT VARCHAR2, oLicPlate OUT VARCHAR2,
        oAmountDue OUT NUMBER, oAmountPaid OUT NUMBER,
        oRecordKey OUT NUMBER, oPayable OUT VARCHAR2
                        );
```

Expects:

pAgencyCode	Agency designator code. This code will be assigned by ETEC.
pIssueNo	Ticket number to search for. Must include the prefix character.

Returns: (All fields will be null if a ticket was not found)

oIssueDateTime	Date and time ticket was issued.
oLicStateProv	Vehicle license state (or province) on ticket.
oLicPlate	Vehicle license number on ticket.

oAmountDue Amount due remaining on ticket. Will =0 for paid tickets.

oAmountPaid Sum of all payments made to date.

oRecordKey Unique key identifier of record in table. This value will be used in the payment procedure to specify which ticket to pay.

oPayable 'Y' = can accept payment on ticket.
'N' = cannot accept payment on ticket. (Ticket is closed or has access denied for other reasons. i.e. has been sent to plate denial.)

Usage:

Call this procedure to initiate a search by ticket number. Any other pending search will be terminated. All returned fields will be null if no matching record is found. If a record is found, the companion procedure *GetNextIssueNoSearchRec* must be called until all matching records have been retrieved.

Searching by ticket number will return closed as well as open tickets. For closed tickets, *oAmountDue* will be 0.

If *oPayable* is returned 'N', then payment will not be accepted for the ticket. The ticket is either closed, or has access denied for other reasons.

1b) Retrieve additional matches resulting from Search for a ticket by ticket number.

ParkCite_IVR_Package. GetNextIssueNoSearchRec (
pAgencyCode IN VARCHAR2, pIssueNo IN VARCHAR2,
oIssueDateTime OUT DATE,
oLicStateProv OUT VARCHAR2, oLicPlate OUT VARCHAR2,
oAmountDue OUT NUMBER, oAmountPaid OUT NUMBER,
oRecordKey OUT NUMBER, oPayable OUT VARCHAR2
);

Expects:

pAgencyCode Ignored. Only a place keeper to keep the interface identical to *SearchByIssueNo.*

pIssueNo Ignored. Only a place keeper to keep the interface identical to *SearchByIssueNo.*

Returns: (All fields will be null if no more matching tickets are left.)

oIssueDateTime Date and time ticket was issued.

oLicStateProv Vehicle license state (or province) on ticket.

oLicPlate Vehicle license number on ticket.

oAmountDue Amount due remaining on ticket. Will =0 for paid tickets.

oAmountPaid Sum of all payments made to date.

oRecordKey Unique key identifier of record in table. This value will be used in the payment procedure to specify which ticket to pay.

oPayable 'Y' = can accept payment on ticket.
'N' = cannot accept payment on ticket. The ticket is either closed, or has access denied for other reasons.

Usage: Normally this procedure will return nulls since each ticket number should be unique!

Call this procedure to retrieve additional records that matched the original search criteria in a search by ticket number. This procedure is to be called until it returns null. The *pAgencyCode* and *pIssueNo* parameters are ignored; this procedure will return the remaining records from the original search regardless of the values in *pAgencyCode* and *pIssueNo*.

Searching by vehicle license will only return open tickets. This is to limit the number of matching records. To research a closed ticket, the user must search by ticket number.

If *oPayable* is returned 'N', then payment will not be accepted for the ticket. The ticket is either closed, or has access denied for other reasons.

2a) Search for tickets issued to a vehicle license number.

ParkCite_IVR_Package.SearchByLicense(
pAgencyCode IN VARCHAR2, pLicStateProv IN VARCHAR2,
pLicPlate IN VARCHAR2, oIssueNo OUT VARCHAR2,
oIssueDateTime OUT DATE
oAmountDue OUT NUMBER, oAmountPaid OUT NUMBER,
oRecordKey OUT NUMBER, oPayable OUT VARCHAR2
);

Expects:

pAgencyCode	Agency designator code. This code will be assigned by ETEC.
pLicStateProv	Vehicle license state (or province) to search for.
pLicPlate	Vehicle license number to search for.

Returns: (All fields will be null if a ticket was not found)

oIssueNo	Ticket number.
oIssueDateTime	Date and time ticket was issued.
oAmountDue	Amount due remaining on ticket. Will =0 for paid tickets.
oAmountPaid	Sum of all payments made to date.
oRecordKey	Unique key identifier of record in table. This value will be used in the payment procedure to specify which ticket to pay.
oPayable	'Y' = can accept payment on ticket. 'N' = cannot accept payment on ticket. The ticket is either closed, or has access denied for other reasons.

Usage:

Call this procedure to initiate a search by vehicle license. Any other pending search will be terminated. All returned fields will be null if no matching record is found. If a record is found, the companion procedure *GetNextVehicleSearchRec* must be called until all matching records have been retrieved.

Searching by vehicle license will only return open tickets. This feature limits the number of matching records. To research a closed ticket, the user must search by ticket number.

If *oPayable* is returned 'N', then payment will not be accepted for the ticket. The ticket is either closed, or has access denied for other reasons.

2b) Retrieve additional matches resulting from search for tickets issued to a vehicle license number.

ParkCite_IVR_Package. GetNextLicenseSearchRec (
pAgencyCode IN VARCHAR2, pLicStateProv IN VARCHAR2,
pLicPlate IN VARCHAR2, oIssueNo OUT VARCHAR2,
oIssueDateTime OUT DATE
oAmountDue OUT NUMBER, oAmountPaid OUT NUMBER,
oRecordKey OUT NUMBER, oPayable OUT VARCHAR2
);

Expects:

pAgencyCode Ignored. Only a place keeper to keep the interface identical to *SearchByLicense*

oLicStateProv Ignored. Only a place keeper to keep the interface identical to *SearchByLicense.*

oLicPlate Ignored. Only a place keeper to keep the interface identical to *SearchByLicense.*

Returns: (All fields will be null if no more matching tickets are left.)

oIssueNo Ticket number.

oIssueDateTime Date and time ticket was issued.

oAmountDue Amount due remaining on ticket. Will =0 for paid tickets.

oAmountDue Amount due remaining on ticket. Will =0 for paid tickets.

oAmountPaid Sum of all payments made to date.

oRecordKey Unique key identifier of record in table. This value will be used in the payment procedure to specify which ticket to pay.

oPayable 'Y' = can accept payment on ticket.
'N' = cannot accept payment on ticket. The ticket is either closed, or has access denied for other reasons.

Usage:

Call this procedure to retrieve additional records that matched the original search criteria in a search by vehicle license number. This procedure is to be called until it returns null. The *pAgencyCode, pLicStateProv,* and *pLicPlate* parameters are ignored; this procedure will return the remaining records from the original search regardless of the values in these parameters.

Searching by vehicle license will only return open tickets. This feature limits the number of matching records. To research a closed ticket, the user must search by ticket number.

If *oPayable* is returned 'N', then payment will not be accepted for the ticket. The ticket is either closed, or has access denied for other reasons.

3) Make a payment on a known ticket.

ParkCite_IVR_Package. PayKnownTicket (
pRecordKey IN NUMBER, pPaymentAmount IN number,
pCreditOrDebitCardType IN varchar2, pCreditOrDebitCardNum IN varchar2,
pCreditOrDebitCardExpiryDate IN varchar2,
pCreditOrDebitCardAuthNum IN varchar2,
pVendorID IN varchar2, pVendorTransactionNumber IN varchar2,
oStatusCode OUT Number, oStatusMessage OUT varchar2
);

Expects:

pRecordKey	Unique key identifier of ticket to be paid. This is the value that is returned in *oRecordKey* in the search procedures.
pPaymentAmount	Dollar amount of payment to apply.
pCreditOrDebitCardType	One of "VISA", "MC", "DEBIT", "AMEX", "DISC"
pCreditOrDebitCardNum	Credit card number.
pCreditOrDebitCardExpiryDate	Credit/Debit card expiration.
pCreditOrDebitCardAuthNum	Credit/Debit transaction authorization number.
pVendorID	Always "CALLPRO".
pVendorTransactionNumber	Unique transaction identifier generated by CallPro that allows cross-referencing a transaction to a record in CallPro's database.

Returns:

oStatusCode	Numeric status code indicating success or failure of transaction. Each status code has an accompanying status message. The codes are listed in the **Status Code Table** below.
oStatusMessage	Text status message that corresponds to *oStatusCode*.

Usage:

Call this procedure to apply a payment to a ticket found via the search routines. The procedure will return a status of either success (0) or failure (>0) with a reason. (Status codes and reasons are listed in the **Status Code Table** below.)

4) Make a payment on an unknown ticket.

ParkCite_IVR_Package. PayUnknownTicket (
pIssueNo IN VARCHAR2, pLicStateProv IN VARCHAR2,
pLicPlate IN VARCHAR2, pRecordKey IN NUMBER,
pPaymentAmount IN number, pCreditOrDebitCardType IN varchar2,
pCrreditOrDebitCardNum IN varchar2, pCreditOrDebitCardExpiryDate IN varchar2,
pCreditOrDebitCardAuthNum IN varchar2, pVendorID IN varchar2,
pVendorTransactionNumber IN varchar2, oStatusCode OUT Number,
oStatusMessage OUT varchar2
);

Expects:

pIssueNo	Ticket number to pay. Must not already exist in the database.
pLicStateProv	State or Province of vehicle.
pLicPlate	License number of vehicle.
pPaymentAmount	Dollar amount of payment to apply.
pCreditOrDebitCardType	One of "VISA", "MC", "DEBIT", "AMEX" , "DISC"
pCreditOrDebitCardNum	Credit card number.
pCreditOrDebitCardExpiryDate	Credit/Debit card expiration.
pCreditOrDebitCardAuthNum	Credit/Debit transaction authorization number.
pVendorID	Always "CALLPRO".
pVendorTransactionNumber	Unique transaction identifier generated by CallPro that allows cross-referencing a transaction to a record in CallPro's database.

Returns:

oStatusCode	Numeric status code indicating success or failure of transaction. Each status code has an accompanying status message. The codes are listed in the **Status Code Table** below.
oStatusMessage	Text status message that corresponds to *oStatusCode*.

Usage:

Call this procedure to apply a payment to a ticket not found via the search routines. The procedure will create a skeletal record in the database with the supplied ticket number, license province, and license number. The user must supply these values, as well as the amount to pay. Because the record is skeletal and has no amount due, the payment does not have to be less than or equal to the amount due, which is zero. The procedure will return a status of either success (0) or failure (>0) with a reason. (Status codes and reasons are listed in the **Status Code Table** below.)

PayKnownTicket/PayUnknownTicket Return Status Codes Table

Status Code	Status Message	Explanation
0	Payment applied successfully	Everything worked.
1	Payment refused- Invalid record key	The record key is NULL or does not refer to a valid ticket. Returned by *PayKnownTicket* only.
2	Payment refused- Ticket is closed or at plate denial	Payments cannot be applied to closed tickets or tickets already at plate denial. Returned by *PayKnownTicket* only.
3	Payment refused- Invalid payment amount.	Payment amount must be greater than 0 and less than or equal to the amount due (for non-skeletal tickets).
4	Payment refused- Missing or invalid card type.	Card type cannot be blank and must be one of the following values:VISA, MC, AMEX, DEBIT, DISC
5	Payment refused- Missing or invalid card number	Card number cannot be blank.
6	Payment refused- Missing or invalid expiration date	Expiration date cannot be blank and must be greater than the current system date.
7	Payment refused- Missing or invalid authorization number	Authorization number cannot be blank.
8	Payment refused- Missing or invalid vendor ID	Vendor ID cannot be blank.
9	Payment refused- Missing or invalid vendor transaction number	Vendor transaction number cannot be blank.
10	Payment refused- Missing or invalid ticket number.	Returned by *PayUnknownTicket* only. Ticket number is blank or the Ticket number already exists.
11	Payment refused- Missing or invalid vehicle license number.	Returned by *PayUnknownTicket* only. *PLicPlate* is blank.
12	Payment refused- Missing or invalid vehicle license province.	Returned by *PayUnknownTicket* only. *pLicStateProv* is blank.
99	Payment refused- Unknown database error.	Any error that is not covered by the previous error codes.

The procedure definitions shown above along with the requirements listed on page one are accepted.

_____ _____

For: _____ For: Enforcement Technology

Date:_____ Date:_____

AutoPROCESS Collections Interface

Rev C

May 2000

The AutoPROCESS collection module allows electronic interchange of data with collection agencies. The interface consists of a series of exports and imports that work together to allow an issuing agency to export tickets to a collection agency, as well as import payment information from a collection agency. For the purposes of this document, all EXPORT files originate from the AutoPROCESS and are sent to a collection agency; all IMPORT files originate from a collection agency, and are imported into AutoPROCESS.

Each collection agency will be assigned a code that the collection agency will be required to include in all import files submitted to AutoPROCESS (see the Import File Specification below). This code will identify the payments received as originating from that collection agency.

There are three export files created by AutoPROCESS that will be submitted to the collection agencies: *Initial Referral* of new tickets, *Refresh* for existing tickets with changed information, and *Payments* received on existing tickets. The *Initial Referral* and *Refresh* files share the same format, the *Payments* export file has the same format as the *Payments* import file described below.

There is one import file that will be created by the collection agencies and submitted to AutoPROCESS for importing. This file lists all the payments, partial or full, received by the collection agency.

The ***Initial Referral*** export file contains all new tickets that are to be sent to the collection agency. These tickets have never been sent to collection before, and now meet the criteria for sending a ticket to collection. The criteria for sending a ticket to collection are defined by the issuing agency, but require approval by ETEC. For example, an issuing agency may specify the following criteria for a ticket to be sent to collection:

- Out of state plates (which cannot be placed on registration hold).
- Registered owner information is available.
- Last late notice sent over 60 days ago.

The ticket ***Refresh*** export file contains all tickets that have had one ore more of the following changes since the ticket was last included in an *Initial Referral* or *Refresh* file.

- Amount due (positive or negative),
- record status (was open, now closed, or vice-versa),
- Responsible Party
- DMV Hold Status (plate on hold has since been removed or vice-versa)

A ticket whose amount due changes as a result of a payment received at the collection agency will still be included in the *Refresh* file (the payment itself will not be sent back to the collection agency in the *Payment* file).

The ***Payments*** export file will include all payment records applied to tickets currently in collection except those payments made to the collection agency and those that close a ticket. In all cases, the ticket will be included in a refresh file. The collection agency should not attempt to calculate the amount due on a ticket using the payment import; the correct amount due will always be in the refresh file.

The ***Payments*** import file is created by the collection agency and lists all the payments received against tickets currently being collected by that collection agency. This file will include both partial and full payments. The payments will be applied to the tickets, then the tickets will be included in the next export to the collection agencies, via the ***Refresh*** export file.

The issuing agency must specify the following information, which will be reviewed for approval by ETEC.

- Criteria for sending a ticket to collections.
- 4 character codes to be assigned to each collection agency that will be included.
- Criteria for assigning which tickets go to which collection agency.

The associated Excel document, Collections Interface.xls defines the file formats required for all files described above. Interfacing with all collection agencies ***must conform to the file layout defined in the Collections Interface.xls document.*** This document and the Collections Interface.xls document must be signed by the issuing agency, as well as the collection agency, and submitted to Enforcement before the collection module can be configured into your AutoPROCESS system.

Any alternate format, additional data, data not conforming to these standards, or requests to import other fields will be reviewed and a quotation for the customization effort will be submitted.

AutoProcess Collections Export File Format

Rev A

October 1999

1 ASCII character set.
2 Fixed File Format.
3 Each field has an identified starting position and ending position.
4 Each record is on a separate line (Carriage-Return/Line Feed).
5 Field Format: N=Numeric;C=AlphaNumeric or Character. For other masks, data will be in exactly the same format as the mask.
6 All currency amounts will be 2 decimal places and will include a "." as the decimal indicator
7 All character fields are right padded with spaces (ASCII 32) to their maximum length.
8 All numeric fields are left padded with 0's (ASCII 48)

Item No	Description	Field Length	Field Format	Position Start	Position End	Valid Values	Comments
1	ISSUE DATE	8	YYYYMMDD	1	8		Citation Issue Date
2	ISSUE TIME	4	HHMM	9	12	HHMM	Citation Issue Time (military format)
3	TICKET NUMBER	10	C	13	22		Ticket Number
4	Amount Due	6	999.99	23	28		Amount currently due at the time of the file creation.
5	Previous Amount Due	7	9999.99	29	35	Will be left padded with 0's.	Amount that was due the last the ticket was included in a collection export file. For tickets being sent to collection for the first time, this field will be 0. For all other tickets, Previous Amount Due - Amount Due = all payments applied to the ticket since it was last included in an export file. (Positive result means net payment, negative result means more fees added.)
6	License Plate Number	10	C	36	45	Left Justified, padded with spaces	License plate number of the cited vehicle on the ticket.
7	License Plate State/Province	3	C	46	48	ON=Ontario, PQ=Quebec, etc.	License plate state/province of the cited vehicle on the ticket.
8	Owner Name	40	C	49	88		Name of the person responsible for payment of the ticket.
9	Owner Street Address	40	C	89	128		Street number and name of owner, including apartment number when necessary.
10	Owner City	30	C	129	158		City portion of owner's address.
11	Owner State/Province	3	C	159	161		State/Province portion of owner's address.
12	Owner Postal Code	10	C	162	171		Postal/ZIP code portion of owner's address.
13	Owner Sex	1	C	172	172	M=Mail, F=Female	Gender of owne.
14	Sent to Collection Date	8	YYYYMMDD	173	180	0's if no date	Date ticket was first sent to a collection agency.
15	Collection Agency Name	8	C	181	188		Identifying code assigned to each collection agency. This value must be included in the import file created by the collection agencies.

1 ASCII character set.
2 Fixed File Format.
3 Each field has an identified starting position and ending position.
4 Each record is on a separate line (Carriage-Return/Line Feed).
5 Field Format: N=Numeric;C=AlphaNumeric or Character. For other masks, data will be in exactly the same format as the mask.
6 All currency amounts will be 2 decimal places and will include a "." as the decimal indicator
7 All character fields are right padded with spaces (ASCII 32) to their maximum length.
8 All numeric fields are left padded with 0's (ASCII 48)

Item No	Description	Field Length	Field Format	Position Start	Position End	Valid Values	Comments
1	ISSUE DATE	8	YYYYMMDD	1	8		Citation Issue Date as provided in the export file created by AutoProcess.
2	TICKET NUMBER	10	C	9	18		Ticket Number as provided in the export fle created by AutoProcess.
3	License Plate Number	10	C	19	28	Left Justified, padded with spaces	License plate number as provided in the export file created by AutoProcess.
4	License Plate State/Province	3	C	29	31	ON=Ontario, PQ=Quebec, etc.	License plate state/province of the cited vehicle as provided in the export file created by AutoProcess.
5	Collection Agency Name	8	C	32	39		Identifying code assigned to each collection agency as provided in the export file created by AutoProcess.
6	Payment Date	8	YYYYMMDD	40	47		Date the payment was received by the collection agency.
7	Payment Amount	7	9999.99	48	54		Dollar amount of the payment received.

AutoPROCESS Interactive Payments API

Rev A

February 28, 2000

AutoPROCESS has an Applications Program Interface (API) defined to allow interactive access to the Oracle database it uses to store citation information. This interface provides direct online interactive searching for citation records and recordation of payments against records currently in the AutoPROCESS database, as well as creation of skeletal records allowing payments to be recorded towards citations not yet available in the AutoPROCESS database.

Either the citation number or the license number with the state can initiate searching the database for citation records. Searching the database by either method is supported, but both methods require the additional search parameter called "Agency Code". This code helps to uniquely define a citation in multiple issuing agency installations.

Any alternate format, additional data, or procedures not conforming to those listed below, or requests to search the database or record payments by other methods will be reviewed and a quotation for the customization effort will be submitted.

Technical Description

There are two Oracle views available to inquire upon tickets, and a command table to enter payments into the AutoPROCESS database. Below is a technical overview followed by a detailed description with examples of how to use these views and tables. All of the procedures are to be invoked via a direct connection to the AutoPROCESS Oracle database.

▪ Section A: Technical Overview

There are two separate methods to find tickets in the database. The first searches by citation number, the second searches by license plate and state. The search can be conducted on either of the two views, **VIEWIVR_PARKCITE_ISSUENO** or **VIEWIVR_PARKCITE_LICPLATE.**

The VIEWIVR_PARKCITE_ISSUENO view returns payable and non-payable tickets, while the VIEWIVR_PARKCITE_LICPLATE view only returns payable tickets.

While the two searches differ in the parameters to search by, they share the following characteristics:

- *Both search methods require that an "Agency Code" be provided as an additional search parameter.*
  The agency code is used to distinguish between citations with the same citation number but issued by different agencies.
- *Both search methods allow access to the "RecordKey" for each found record.*
  While this number is of no value to the caller, it must be used to identify the ticket that the payment is to be applied to. This number uniquely identifies each ticket in the database.

When a citation is found, a payment can be applied to it by inserting a record into the **IVR_COMMANDTABLE** table with the *RecordKey* of the citation and the value "1" in the *CommandNumber* column.

If the citation cannot be found, the payment can still be applied by supplying the *IssueNo*, *LicPlate*, and *LicStateProv* columns, and the value "2" in the *CommandNumber* column. A skeletal citation record will be created, and the payment will be applied to it.

▪ Section B: Table and view definitions

VIEW **VIEWIVR_PARKCITE_ISSUENO**

Usage:
Use this view to find a citation when the citation number is known. It will return the matching citation if it exists regardless of whether or not a payment can be applied to it.

Use the *Payable* column to determine if a payment will be accepted.

Available fields:

Column Name	Column Type	Notes
RecordKey	NUMBER	Number that uniquely identifies every citation in the database. This number must be provided to the IVR_COMMANDTABLE table when the payment is applied.
AgencyDesignator	VARCHAR2(5)	Fixed code assigned by ETEC to every client. Must be included in search criteria.
IssueNo	VARCHAR2(20)	Citation number. Must be included in sear criteria.
IssueDate	DATE	Date citation was issued. Time portion of t column will be 0.
IssueTime	DATE	Time citation was issued. Date portion is always Dec 30, 1899.
LicPlate	VARCHAR2(20)	License plate number citation is issued to.
LicStateProv	VARCHAR2(7)	License plate state/province citation is issued to.
AmountDue	NUMBER	Amount currently due on the citation. Reflects all fines, fees and credits applied the citation.
TotalCashPaid	NUMBER	Total payments received to date on the citation.
Payable	VARCHAR2(1)	Either "Y" or "N". Indicates whether or no a payment can be applied to the citation. Tickets that have already been paid will have value "N".

VIEW **VIEWIVR_PARKCITE_LICPLATE**

Usage:
Use this view to find a citation when the citation number is not known, but the vehicle license number and state are known.

Because there is a potential for a large number of citations that match the criteria, only those for which a payment will be accepted (*Payable*='Y') will be returned.

Available fields:

Column Name	Column Type	Notes
RecordKey	NUMBER	Number that uniquely identifies every citation in the database. This number must be provided to the IVR_COMMANDTABLE table when the payment i applied.
AgencyDesignator	VARCHAR2(5)	Fixed code assigned by ETEC to every client. Must be included in search criteria.
IssueNo	VARCHAR2(20)	Citation number.
IssueDate	DATE	Date citation was issued. Time portion of the column will be 0.
IssueTime	DATE	Time citation was issued. Date portion is always De 30, 1899.
LicPlate	VARCHAR2(20)	License plate number citation is issued to. Must be included in the search criteria.
LicStateProv	VARCHAR2(7)	License plate state/province citation is issued to. Optionally included in the search criteria.
AmountDue	NUMBER	Amount currently due on the citation. Reflects all fines, fees and credits applied to the citation.
TotalCashPaid	NUMBER	Total payments received to date on the citation.
Payable	VARCHAR2(1)	Either "Y" or "N". Indicates whether or not a payme can be applied to the citation.

TABLE **IVR_COMMANDTABLE**

Usage:
Insert records into this table to apply payments to citations found through inquiry, or citations known not to exist in the database.

To apply a payment to a citation known to exist, provide the *RecordKey* of the citation, and set *CommandNumber* = 1.

To apply a payment to a citation known to not exist in the database, provide the *IssueNo*, *LicPlate*, and *LicStateProv* of the citation, and set *CommandNumber* = 2.

The transaction outcome (success or reason for failure) can be determined by searching for the record just inserted (the *VendorID* and *VendorTransactionNumber* columns uniquely identify every record in this table) and reading the *StatusCode* and *StatusMessage* columns.

Available fields:

Column Name	Column Type	Notes
RecordKey	NUMBER	Number that uniquely identifies every citation i database. This number is provided in either of the search views. This value must be provided for payments applied to citations known to exist in database.
AgencyDesignator	VARCHAR2(5)	Fixed code assigned by ETEC to every client. M be included for all payments.
IssueNo	VARCHAR2(20)	Citation number. Only required for payments to citations that do not exist in the database (i.e. "Skeletal" citations)
LicPlate	VARCHAR2(20)	License plate number citation is issued to. Only required for payments to citations that do not ex t the database (i.e. "Skeletal" citations)
LicStateProv	VARCHAR2(7)	License plate state/province citation is issued to. Only required for payments to citations that do exist in the database (i.e. "Skeletal" citations)
PaymentAmount	NUMBER(15,2)	Amount of the payment to apply to the ticket. Mu be greater than 0. Required field.
MoneyKind	VARCHAR2(30)	One of "CHECK", "CASH", "CREDIT", "MOI ORDER", "DEBIT CARD". Required field.
CreditOrDebitCardType	VARCHAR2(20)	One of "VISA", "MC", "DEBIT", "AMEX", "DISC". Required if MoneyKind is "CREDIT" o "DEBIT CARD".
CreditOrDebitCardNumber	VARCHAR2(30)	Credit or Debit card number. Required if Mone is "CREDIT" or "DEBIT CARD".
CreditOrDebitCardExpiryDate	VARCHAR2(10)	Credit or Debit card expiration date. Required if MoneyKind is "CREDIT" or "DEBIT CARD".
CreditOrDebitCardAuthNum	VARCHAR2(30)	Authorization number used in Credit or Debit ca transactions. Required if MoneyKind is "CREDIT or "DEBIT CARD".
CheckNo	VARCHAR2(30)	Check number. Required if MoneyKind is "CHE

		or "MONEY ORDER"
Trans_Source	VARCHAR2(30)	Code used to determine source of the payment. U by "Payments Received sorted by Payment Sourc report to sub-total payments received.
VendorID	VARCHAR2(30)	Code assigned to the vendor by ETEC that must b the same for all payments. Used to distinguish payments from different vendors. This column in combination with VendorTransactionNumber uniquely identifies every payment entered throug the payment API. Required field.
VendorTransactionNumber	NUMBER	Unique number assigned by vendor to each transaction that provides a cross-reference into the vendor's internal database. This number in combination with VendorID uniquely identifies e payment entered through the payment API. Requi field.
CommandNumber	NUMBER	Specifies whether payment is being applied to a citation that already exists (CommandNumber = 1 to a citation that does not yet exist (CommandNumber=2). Required field.
StatusCode	NUMBER	Code supplied by API after a payment insert is attempted that indicates success or reason for fail This code can be inquired upon by search on the t by VendorID and VendorTransactionNumber. A listing of the possible StatusCodes is provided at t end of this document.
StatusMessage	VARCHAR2(80)	Translation of StatusCode.

▪ Section C: Examples of how to search and make payments

In these examples, the AutoProcess payment API is being accessed by an IVR provider to the City of Ottawa. The ETEC assigned codes are:

AgencyDesignator : **OTTCI**
Trans_Source : **IVR**
VendorID: **CALLPRO**

For the purposes of these examples, the citation database contains the citations:

Citation Number	**Record Key**	**License State & Plate**	**Amount Due**	**Payable**
C000001	1	NV 321654	$10.00	YES
C000023	2	CA ABC123	$0.00	NO
C000028	3	CA ABC123	$25.00	YES

The procedural interfaces examples described below are provided for clarity.

Example 1: *Search for a citation by citation number. Citation exists and is payable:*

SELECT * FROM VIEWIVR_PARKCITE_ISSUENO WHERE ISSUENO = 'C000001' AND AGENCYDESIGNATOR = 'OTTCI';

The resulting data-set is:

Citation Number	Record Key	License State & Plate	Amount Due	Payable
C000001	1	NV 321654	$10.00	YES

Example 2: *Apply a credit card payment to the citation returned in example 1:*

INSERT INTO IVR_COMMANDTABLE (RECORDKEY,
AGENCYDESIGNATOR, PAYMENTAMOUNT, MONEYKIND,
CREDITORDEBITCARDTYPE, CREDITORDEBITCARDNUMBER,
CREDITORDEBITCARDEXPIRYDATE,
CREDITORDEBITCARDAUTHNUM, CHECKNO,
TRANS_SOURCE, VENDORID,
VENDORTRANSACTIONNUMBER, COMMANDNUMBER)

VALUES (1, ' OTTCI', 10.00, 'CREDIT', 'VISA', '1111222233334444', '06/02', '1122334', NULL, 'IVR', 'CALLPRO', 0, 1);

Example 3: *Inquire upon the status of the payment applied in example 2.*

```
SELECT( STATUSCODE, STATUSMESSAGE) FROM
    IVR_COMMANDTABLE
WHERE
    VENDORID = 'CALLPRO' AND
    VENDORTRANSACTIONNUMBER = 0;
```

The resulting data-set is:

STATUSCODE	STATUSMESSAGE
0	Payment applied successfully

Example 4: *Search for a ticket by license plate and state/ province.*

SELECT * FROM VIEWIVR_PARKCITE_LICPLATE WHERE LICPLATE = 'ABC123' AND LICSTATEPROV = 'CA' AND AGENCYDESIGNATOR = 'OTTCI';

The resulting data-set is:

Citation Number	Record Key	License State & Plate	Amount Due	Payable
C000028	3	CA ABC123	$25.00	YES

Note that while there are two citations for CA ABC123, only one was found in the search. Citation number C000023 was not returned in this search because it is not a payable ticket.

Example 5: *Make a $15.00 check payment on citation number D000001, issued to plate CA 123456.*

Note that this citation does not exist in the database.

```
INSERT INTO IVR_COMMANDTABLE (ISSUENO, LICPLATE,
    LICSTATEPROV, AGENCYDESIGNATOR, PAYMENTAMOUNT,
    MONEYKIND, CREDITORDEBITCARDTYPE,
    CREDITORDEBITCARDNUMBER,
```

```
CREDITORDEBITCARDEXPIRYDATE,
CREDITORDEBITCARDAUTHNUM, CHECKNO,
TRANS_SOURCE, VENDORID,
VENDORTRANSACTIONNUMBER, COMMANDNUMBER )
VALUES ( 'D000001', '123456', 'CA', ' OTTCI', 15.00, 'CHECK', NULL,
NULL, NULL, NULL, '679', 'IVR', 'CALLPRO', 1, 2 );
```

PayKnownTicket/PayUnknownTicket Return Statuses

Status Code	Status Message	Explanation
0	Payment applied successfully	Everything worked.
1	Payment refused- Invalid record key	The record key is NULL or does not refer to a valid ticket. Returned by *PayKnownTicket* only.
2	Payment refused- Ticket is closed or at plate denial	Payments cannot be applied to closed tickets or tickets already at plate denial. Returned by *PayKnownTicket* only.
3	Payment refused- Invalid payment amount.	Payment amount must be greater than 0 and less than or equal to the amount due (for non-skeletal tickets).
4	Payment refused- Missing or invalid card type.	Card type cannot be blank and must be one of the following values:VISA, MC, AMEX, DEBIT, DISC
5	Payment refused- Missing or invalid card number	Card number cannot be blank.
6	Payment refused- Missing or invalid expiration date	Expiration date cannot be blank and must be greater than the current system date.
7	Payment refused- Missing or invalid authorization number	Authorization number cannot be blank.
8	Payment refused- Missing or invalid vendor ID	Vendor ID cannot be blank.
9	Payment refused- Missing or invalid vendor transaction number	Vendor transaction number cannot be blank.
10	Payment refused- Missing or invalid ticket number.	Returned by *PayUnknownTicket* only. Ticket number is blank or the Ticket number already exists.
11	Payment refused- Missing or invalid vehicle license number.	Returned by *PayUnknownTicket* only. *PLicPlate* is blank.
12	Payment refused- Missing or invalid vehicle license province.	Returned by *PayUnknownTicket* only. *pLicStateProv* is blank.
99	Payment refused- Unknown database error.	Any error that is not covered by the previous error codes.

The procedure definitions shown above along with the requirements listed on page one are accepted.

_____	_____
For: _____	For: Enforcement Technology
Date: _____	Date: _____

Cashiering capabilities for items unrelated to AutoPROCESS

Rev A

April, 00

AutoPROCESS provides a complete cashiering module allowing cashiering transactions to be entered for any records within the AutoPROCESS database, such as Parking Tickets, Permits, Tow Records, etc. Many agencies provide cashiering stations where a citizen may pay any number of obligations, regardless of what system the bill they want to pay originated from. For example a citizen may wish to pay their water bill, dog license fee and a parking ticket with a single check (or with separate payment methods for each entity) at the cashiering window. This document discusses AutoPROCESS's capabilities of excepting such payments and the reporting and or electronic distribution of information regarding these payments.

This module will provide a button on the cashiering screen entitled "Other Items" that, when clicked, will display a screen for the operator to enter some basic information about the item they wish to pay. The first enter must be selected from a list of items that can be paid. For example, water bill, electric bill, property taxes, etc. This list is configurable and it controls the appearance and number of the other data elements that will be entered for that item. An item number, corresponding to the item to be paid, will be required. It should be the uniquely identifying piece of information along with the item type that will be reported upon. An amount due field will be required to facilitate calculation of the total amount to be paid for all items. There will be additional comment fields available for data entry.

The following chart summarizes the data elements that can be entered when selecting "Other Items" from the cashiering menu.

Field	Attribute	Comment
Type	List Only(15)	A list of item types that represent the item to be paid.
Item Number	A/N (20)	This is the unique item number corresponding to the bill to be paid.
Amount due for this item	N (8)	This amount must be paid during this transaction. Format: 99999.99
Due Date	Date Field	Optional due date Format: mm/dd/ccyy
Text Field One	Date A/N (60)	Free form entry field for miscellaneous text.
Text Field Two	Date A/N (60)	Free form entry field for miscellaneous text.
Text Field Three	Date A/N (60)	Free form entry field for miscellaneous text.
Text Field Four	Date A/N (60)	Free form entry field for miscellaneous text.
Text Field Five	Date A/N (60)	Free form entry field for miscellaneous text.

The fields listed above and the following fields, which are shared by all items paid within a single transaction, can be exported to another computer system using AutoPROCESS's export functionality.

Field	Attribute	Comment
Payment Date	Date Field	Any format
Amount Paid	N(8)	99999.99
Payment Type	A/N(30)	Cash, Credit, Check
Credit Card Type	A/N(20)	Visa, Discover etc.
Credit Card Name	A/N(80)	Card Holder
Credit Card Authorization	A/N(20)	Authorization Number
Credit Card Expiry	Date Field	MM/YYYY

Note!

The items in the Type Field list are customer definable with ETEC approval. The User Text fields are for customer convenience and use. AutoPROCESS only stores these fields for reporting and exporting purposes, and therefore almost any data can be included in these fields.

Any alternate format, additional data elements, or data not conforming to the above standards or requests to change the cashiering for non-AutoPROCESS items interface will be reviewed and a quotation for the customization effort will be submitted.

Workstation ID : Non Cash Reg
Drawer ID : mikes

Workstation
Session No. : 1
Drawer
Session No. : 5

Receipt Number : 33
Payment Date : 03/22/2000
Payment Time : 08:57 AM

Item Description : ELECTRICITY BILL
Issue # : 45545421515
Amount Due : $30.00
Amount Paid : $30.00
Balance Due : $0.00

Item Description : Water Bill
Issue # : W123221
Amount Due : $97.50
Amount Paid : $97.50
Balance Due : $0.00

Item Description : Parking
Issue # : A1111111
Amount Due : $35.00
Amount Paid : $25.50
Balance Due : $9.50

Paid by : CASH
Amount Due : $162.50
Amount Paid : $153.00
Amount Tendered : $153.00
Amount Change : $0.00
Cashier ID : MASTER ID

Workstation ID : Non Cash Reg
Drawer ID : MyDrawer

rkstation
Session No. : 5
Drawer
ssion No. : 6

Receipt Number : 54
yment Date : 04/10/2000
yment Time : 03:04 PM

Item Description : Parking
sue # : D653494
ount Due : $25.00
Amount Paid : $25.00
Balance Due : $0.00

em Description : DOG LICENSE
Issue # : 324234
Amount Due : $90.00
ount Paid : $90.00
alance Due : $0.00

aid by : CASH
mount Due : $115.00
Amount Paid : $115.00
mount Tendered : $120.00
ount Change : $5.00
ashier ID : MASTER ID

Cash Other Transactions Report

Creation Date/Time: 03/24/2000 3:54:39 PM

Includes All Dates

Ottawa Production System on Oracle8-ORC8 NT

Agency: **All**

Payee Type: **DOG LICENSE**

Receipt Number	Item Number	Amount Paid	Amount Tendered	Change	Payment Type
45	D45851245	$50.00	$55.00	$5.00	CASH
53	DG32332323	$97.00	$100.00	$3.00	CASH
Payee Type Totals:		**$147.00**	**$155.00**	**$8.00**	

Payee Type: **ELECTRICITY BILL**

Receipt Number	Item Number	Amount Paid	Amount Tendered	Change	Payment Type
52	E45575458	$58.00	$90.00	$32.00	CASH
Payee Type Totals:		**$58.00**	**$90.00**	**$32.00**	
Report Totals:		**$205.00**	**$245.00**	**$40.00**	

Cash Other Transactions Summary Report

Creation Date/Time: 03/24/2000 3:54:21 PM

Includes All Dates

Ottawa Production System on Oracle8-ORC8 NT

Agency: All

Payee Type: DOG LICENSE

Payee Type Totals:	**$147.00**	**$155.00**	**$8.00**

Payee Type: ELECTRICITY BILL

Payee Type Totals:	**$58.00**	**$90.00**	**$32.00**

Report Totals:	**$205.00**	**$245.00**	**$40.00**

OUT-OF-STATE COLLECTIONS PROCESSING HISTORY AND STATISTICS

ENFORCEMENT TECHNOLOGY, INC.

OUT-OF-STATE FOLLOW-UP COLLECTIONS

In over 15 years of providing parking citation management services to cities, counties, and universities we have always provided, as a basic part of our processing and collection contracts, follow-up on delinquent citations issued to out-of-state registered vehicles. Based on this extensive experience, our efficient and effective approach to this process, and some specific research done in Alameda County we expect to obtain 75%, or better, valid vehicle registrations (hit rate) from around the country. From that information we can expect as high as 35%, or better, collection rate. An extremely important aspect of attaining this collection rate is the celerity and consistency of the interface between your system and ours.

Over a 5 year period of processing for the Marin County Parking Authority (MPA) we had hit rates as high as 90.9% and collection rates as high as 57 .6%. Average hit rates were 74.2% and average collection rates were 29.2% for all issuing agencies (15) in the MPA.

During the 6 year period of processing for the Los Angeles County Municipal Courts (24 districts) we had hit rates as high as 80.2% and collection rates as high as 38.3%. Average hit rates were 61.9% and average collection rates were 21.2% for all issuing agencies (150+) in all districts.

As part of a larger research project some preliminary analysis of registered owner information was conducted for the City of Berkeley. A random sample of 695 Out-of-State license numbers was generated from the City computer so as to obtain an equal representative sample from all states. The sample included City issued citations and citations issued by the University of California. These license numbers were processed through our system using the same methodology we use currently. Within 8 days we prepared our report back to the City. At that time we had already received a hit rate averaging 74.8% across all states. This included some states in which we received 100% and some with 0% which had not come back as of the report. We were not successful in convincing the City to send notices to these registered owners so we do not have the collection rate for these registered offenders. A copy of this **Out-of-State r/o Return Analysis** is included for your review in the attachments,

Also in the attachments you will find several of our current clients with an analysis of good information returned from DMVs around the country (Hit Rate) and payments on citations after notices were sent to those with valid registered owner information (Collection Rate) . As you can see for the City of San Diego we had hit rates as high as 77.27% and collection rates of as high as 36.47%. The same rates for the City of Pacific Grove were 64.29% and 50.30%. This information was provided upon approval of these clients. To provide information for ALL of our clients (100+) we would need to secure their individual approvals.

OUT-OF-STATE R/O ANALYSIS (ALAMEDA COUNTY)

STATE	R/O REQUESTS	RETURNS PENDING	INVALID RETURNS	VALID RETURNS	% VALID OF R/O REQUESTS
ALABAMA	5	0	3	2	40%
ALASKA	2	0	0	2	100%
ARIZONA	25	0	2	23	92%
ARKANSAS	6	1	0	5	83%
CALIFORNIA	-	-	-	-	-
COLORADO	39	0	10	29	74%
CONNECTICUT	12	0	3	9	75%
DELAWARE	2	0	0	2	100%
DIST. OF COL.	-	-	-	-	-
FLORIDA	18	0	1	17	94%
GEORGIA	6	0	6	0	0%
HAWAII	3	3	0	0	0%
IDAHO	10	0	2	8	80%
ILLINOIS	47	0	23	24	51%
INDIANA	4	0	4	0	0%
IOWA	6	0	6	0	0%
KANSAS	6	0	0	6	100%
KENTUCKY	6	0	0	6	100%
LOUISIANA	13	0	3	10	77%
MARYLAND	12	0	2	10	83%
MASSACHUSETTS	32	0	4	28	87.5%
MAINE	3	0	2	1	33%
MICHIGAN	19	0	3	16	84%
MINNESOTA	12	0	2	10	83%
MISSISSIPPI	2	0	2	2	100%
MISSOURI	10	0	4	6	60%
MONTANA	9	0	9	0	0%
NEBRASKA	9	9	0	0	0%
NEW HAMPSHIRE	5	0	2	3	60%
NEW JERSEY	12	0	0	12	100%
NEW MEXICO	21	0	0	21	100%
NEW YORK	27	0	4	23	85%
NEVADA	29	0	22	7	24%
NORTH CAROLINA	13	0	1	12	92%
NORTH DAKOTA	3	0	0	3	100%
OHIO	20	2	3	15	75%
OKLAHOMA	11	0	5	6	54%
OREGON	78	3	3	72	92%
PENNSYLVANIA	13	0	1	12	92%
RHODE ISLAND	5	1	0	4	80%
SOUTH CAROLINA	5	1	0	4	80%
SOUTH DAKOTA	2	0	2	0	0%
TENNESSEE	8	2	0	6	75%
TEXAS	31	0	3	28	80%
UTAH	14	0	1	13	92%
VERMONT	6	0	0	6	0%
VIRGINIA	16	0	4	12	75%
WASHINGTON	37	0	4	33	89%
WEST VIRGINIA	1	1	0	0	0%
WISCONSIN	14	1	1	12	85%
WYOMING	6	0	6	0	0%
TOTALS:	**695**	**24**	**151**	**520**	**74.8%**

ENFORCEMENT TECHNOLOGY, INC.

OUT-OF-STATE COLLECTIONS REPORT RUN DATE 09 MAY 1994
CITATION ISSUE DATES: 01/01/92 TO 03/31/94

ISSUED.. COUNT	INQUIRY. SENT	INQUIRY. RECV'D	PERCENT. REC'D	NOTICES. SENT	TOTAL.. # PAID	TOTAL.. $ PAID	TOTAL.. % PAID
				1ST NOTICES ONLY			
ALAHAMBRA:							
632	411	264	64.23	221	303	$ 6,551	47.94
BELLFLOWER:							
1,580	1,235	611	49.47	479	718	11,286	45.44
MONTEREY PARK:							
592	429	222	51.74	182	290	5,456	48.98
ORANGE COAST COLLEGE:							
1,032	857	551	64.29	447	432	6,774	41.86
PACIFIC GROVE:							
1,489	1,106	715	64.64	589	749	12,019	50.30
SAN DIEGO:							
66,600	56,425	43,604	77.27	33,647	24,291	592,879	36.47
UC BERKELEY:							
2,966	2,959	2,281	77.08	1,874	560	11,905	18.88
UCI MDEICAL CENTER:							
480	389	260	66.83	216	175	2,063	36.45
75,371	**63,811**	**48,508**	**77.02**	**37,655**	**27,518**	**$648,933**	**35.51**

CITY OF SAN DIEGO (OOS)
OUT-OF-STATE PROCESSING STATISTICS REPORT - PERIOD: 01/01/92 TO 03/31/94

1. CITES ISSUED.....	66600
2. R/O INQUIRY REQUESTED.....	56425
3. R/O INQUIRY RECEIVED.....	43604
4. LATE NOTICE SENT.....	33647
5. CITES CLEARED (TOTAL).....	24291
6. CITES CLEARED W/NOTICE.....	14811
7. % OF VALID R/O'S (3/2).....	77.27
8. % CLEARED W/NOTICE (6/4)...	44.01
9. % CLEARED (TOTAL) (5/1)....	36.47

CITY OF PACIFIC GROVE
OUT-OF-STATE PROCESSING STATISTICS REPORT - PERIOD: 01/01/92 TO 03/31/94

1. CITES ISSUED.....	1489
2. R/O INQUIRY REQUESTED.....	1106
3. R/O INQUIRY RECEIVED.....	715
4. LATE NOTICE SENT.....	589
5. CITES CLEARED (TOTAL).....	749
6. CITES CLEARED W/NOTICE.....	176
7. % OF VALID R/O'S (3/2).....	64.64
8. % CLEARED W/NOTICE (6/4)...	29.88
9. % CLEARED (TOTAL) (5/1)....	50.30

CITY OF ALHAMBRA
OUT-OF-STATE PROCESSING STATISTICS REPORT - PERIOD: 01/01/92 TO 03/31/94

1. CITES ISSUED.....	632
2. R/O INQUIRY REQUESTED.....	411
3. R/O INQUIRY RECEIVED.....	264
4. LATE NOTICE SENT.....	221
5. CITES CLEARED (TOTAL).....	303
6. CITES CLEARED W/NOTICE.....	39
7. % OF VALID R/O'S (3/2).....	64.23
8. % CLEARED W/NOTICE (6/4)...	17.64
9. % CLEARED (TOTAL) (5/1)....	47.94

CITY OF BELLFLOWER
OUT-OF-STATE PROCESSING STATISTICS REPORT - PERIOD: 01/01/92 TO 03/31/94

1. CITES ISSUED.....	1580
2. R/O INQUIRY REQUESTED.....	1235
3. R/O INQUIRY RECEIVED.....	611
4. LATE NOTICE SENT.....	479
5. CITES CLEARED (TOTAL).....	718
6. CITES CLEARED W/NOTICE.....	90
7. % OF VALID R/O'S (3/2).....	49.47
8. % CLEARED W/NOTICE (6/4)...	18.78
9. % CLEARED (TOTAL) (5/1)....	45.44

UCI-MEDICAL CENTER
OUT-OF-STATE PROCESSING STATISTICS REPORT - PERIOD: 01/01/92 TO 03/31/94

1. CITES ISSUED.....	480
2. R/O INQUIRY REQUESTED.....	389
3. R/O INQUIRY RECEIVED.....	260
4. LATE NOTICE SENT.....	216
5. CITES CLEARED (TOTAL).....	175
6. CITES CLEARED W/NOTICE.....	39
7. % OF VALID R/O'S (3/2).....	66.83
8. % CLEARED W/NOTICE (6/4)...	18.05
9. % CLEARED (TOTAL) (5/1)....	36.45

U C BERKELEY (OOS)
OUT-OF-STATE PROCESSING STATISTICS REPORT - PERIOD: 01/01/92 TO 10/31/93

1. CITES ISSUED.....	2966
2. R/O INQUIRY REQUESTED.....	2959
3. R/O INQUIRY RECEIVED.....	2281
4. LATE NOTICE SENT.....	1874
5. CITES CLEARED (TOTAL).....	560
6. CITES CLEARED W/NOTICE.....	370
7. % OF VALID R/O'S (3/2).....	77.08
8. % CLEARED W/NOTICE (6/4)...	19.74
9. % CLEARED (TOTAL) (5/1)....	18.88

ORANGE COAST COLLEGE
OUT-OF-STATE PROCESSING STATISTICS REPORT - PERIOD: 01/01/92 TO 03/31/94

1. CITES ISSUED.....	1032
2. R/O INQUIRY REQUESTED.....	857
3. R/O INQUIRY RECEIVED.....	551
4. LATE NOTICE SENT.....	447
5. CITES CLEARED (TOTAL).....	432
6. CITES CLEARED W/NOTICE.....	145
7. % OF VALID R/O'S (3/2).....	64.29
8. % CLEARED W/NOTICE (6/4)...	32.43
9. % CLEARED (TOTAL) (5/1)....	41.86

CITY OF MONTEREY PARK
OUT-OF-STATE PROCESSING STATISTICS REPORT - PERIOD: 01/01/92 TO 03/31/94

1. CITES ISSUED.....	592
2. R/O INQUIRY REQUESTED.....	429
3. R/O INQUIRY RECEIVED.....	222
4. LATE NOTICE SENT.....	182
5. CITES CLEARED (TOTAL).....	290
6. CITES CLEARED W/NOTICE.....	31
7. % OF VALID R/O'S (3/2).....	51.74
8. % CLEARED W/NOTICE (6/4)...	17.03
9. % CLEARED (TOTAL) (5/1)....	48.98

UNIV. OF SOUTHERN CALIFORNIA RUN DATE: 25 AUG 1992 PAGE: 1
PARKING CITATION COLLECTION ANALYSIS REPORT - BY ISSUE DATE
CITATION ISSUE DATES: 01/01/89 TO 12/31/89

ISSUE DATE	ISSUED COUNT	INQUIRY SENT	INQUIRY RECV'D	PERCENT RECV'D	NOTICE1 SENT	# PAID.. NOTICE#1	$ PAID.. NOTICE#1	PERCENT PAID#1	NOTICE2 SENT	# PAID.. NOTICE#2	$ PAID.. NOTICE#2	PERCENT PAID#2	TOTAL.. # PAID	TOTAL.. $ PAID	TOTAL.. % PAID
0189	959	896	756	84.3	724	193	2,565	26.6	0	0	0	0.0	193	2,565	.1
0289	1534	1439	1212	84.2	1183	359	4,730	30.3	0	0	0	0.0	359	4,730	23.4
0389	1716	1622	1363	84.0	1319	402	5,380	30.5	0	0	0	0.0	402	5,380	.4
0489	1703	1603	1359	84.7	1319	366	4,795	27.7	0	0	0	0.0	366	4,795	.4
0589	1126	1066	929	86.9	907	268	3,435	29.5	0	0	0	0.0	268	3,435	23.8
0689	1365	1259	1089	84.4	1046	289	3,830	27.6	0	0	0	0.0	289	3,830	.1
0789	974	925	776	83.8	749	175	2,230	23.3	0	0	0	0.0	175	2,230	.9
0889	1254	1182	993	84.0	949	253	3,415	26.6	0	0	0	0.0	253	3,415	20.1
0989	1401	1299	1071	82.4	1041	297	4,155	28.5	0	0	0	0.0	297	4,155	.1
1089	1669	1557	1316	84.5	1265	385	5,035	30.4	0	0	0	0.0	385	5,035	23.0
1189	1652	1550	1315	84.8	1259	393	5,180	30.9	0	0	0	0.0	393	5,180	23.6
1289	950	890	758	85.1	746	232	3,175	31.0	0	0	0	0.0	232	3,175	.4
	16313	15320	12937	84.4	12516	3612	47,925	28.8	0	0	0	0.0	3612	47,925	22.1

UNIV. OF SOUTHERN CALIFORNIA RUN DATE: 25 AUG 1992 PAGE: 1
PARKING CITATION COLLECTION ANALYSIS REPORT - BY ISSUE DATE
CITATION ISSUE DATES: 01/01/90 TO 12/31/90

ISSUE DATE	ISSUED COUNT	INQUIRY SENT	INQUIRY RECV'D	PERCENT RECV'D	NOTICE1 SENT	# PAID.. NOTICE#1	$ PAID.. NOTICE#1	PERCENT PAID#1	NOTICE2 SENT	# PAID.. NOTICE#2	$ PAID.. NOTICE#2	PERCENT PAID#2	TOTAL.. # PAID	TOTAL.. $ PAID	TOTAL.. % PAID
0190	1564	1434	1135	79.1	1115	430	6,340	38.5	0	0	0	0.0	430	6,340	27.4
0290	1966	1837	1505	81.9	1467	578	7,990	39.4	0	0	0	0.0	578	7,990	29
0390	2160	2025	1734	85.1	1692	721	10,345	42.6	0	0	0	0.0	721	10,345	33
0490	1668	1574	1353	85.9	1333	547	8,135	41.0	0	0	0	0.0	547	8,135	32.7
0590	1277	1233	1070	86.7	1036	425	6,240	40.9	0	0	0	0.0	425	6,240	33
0690	666	635	559	88.0	543	217	3,160	39.9	0	0	0	0.0	217	3,160	32
0790	725	696	587	84.3	582	248	4,015	42.6	0	0	0	0.0	248	4,015	34.2
0890	1313	1240	1054	84.4	1029	359	8,248	34.8	0	0	0	0.0	359	8,248	27
0990	2	2	1	50.0	0	0	0	0.0	0	0	0	0.0	0	0	0
1090	1	1	0	0.0	0	0	0	0.0	0	0	0	0.0	0	0	0.0
	11342	10635	8998	84.1	8799	3525	54,473	40.0	0	0	0	0.0	3525	54,473	31

U C BERKELEY (OOS) RUN DATE: 04 MAR 1993 PAGE: 1
OUT OF STATE DISPOSITION ANALYSIS REPORT - BY ISSUE DATE
CITATION ISSUE DATES: 10-15-88 TO 02-28-93

ISSUE DATE	ISSUED COUNT	INQUIRY SENT	INQUIRY RECV'D	PERCENT RECV'D	NOTICE1 SENT	# DISP'D NOTICE#1	$ DISPD. NOTICE#1	PERCENT DISP#1	NOTICE2 SENT	# DISP'D NOTICE#2	$ DISPD. NOTICE#2	PERCENT DISP#2	TOTAL.. # DISP	TOTAL.. $ DISP	TOTAL.. % DISP
0889	1	1	1	100.0	1	0	0	0.0	0	0	0	0.0	0	0	0.0
1189	1	1	1	100.0	1	1	22	100.0	0	0	0	0.0	1	22	100.0
1289	2	2	1	50.0	1	1	0	100.0	0	0	0	0.0	1	0	50.0
0190	27	27	16	59.2	14	17	172	121.4	0	0	0	0.0	17	172	62.9
0290	83	83	67	80.7	66	49	360	74.2	0	0	0	0.0	49	360	59.0
0390	121	121	94	77.6	91	68	747	74.7	0	0	0	0.0	68	747	56.1
0490	142	142	119	83.8	113	72	1,084	63.7	0	0	0	0.0	72	1,084	50.7
0590	134	134	105	78.3	104	69	592	66.3	0	0	0	0.0	69	592	51.4
0690	144	144	102	70.8	100	87	709	87.0	0	0	0	0.0	87	709	60.4
0790	160	160	126	78.7	122	79	956	64.7	0	0	0	0.0	79	956	49.3
0890	251	251	196	78.0	187	130	1,085	69.5	0	0	0	0.0	130	1,085	51.7
0990	183	183	144	78.6	141	103	1,234	73.0	0	0	0	0.0	103	1,234	56.2
1090	198	193	170	88.0	162	94	1,068	58.0	0	0	0	0.0	94	1,068	48.7
1190	132	132	99	75.0	95	64	776	67.3	0	0	0	0.0	64	776	48.4
1290	93	93	73	78.4	71	50	636	70.4	0	0	0	0.0	50	636	53.7
0191	159	159	135	84.9	128	76	992	59.3	0	0	0	0.0	76	992	47.7
0291	157	157	124	78.9	122	75	1,023	61.4	0	0	0	0.0	75	1,023	47.7
0391	175	175	132	75.4	129	84	1,160	65.1	0	0	0	0.0	84	1,160	48.0
0491	152	152	123	80.9	111	67	969	60.3	0	0	0	0.0	67	969	44.0
0591	164	163	138	84.6	131	71	984	54.1	0	0	0	0.0	71	984	43.2
0691	161	161	128	79.5	122	73	1,004	59.8	0	0	0	0.0	73	1,004	45.3
0791	208	208	159	76.4	153	89	1,269	58.1	0	0	0	0.0	89	1,269	42.7
0891	177	177	130	73.4	123	80	1,239	65.0	0	0	0	0.0	80	1,239	45.1
0991	132	132	104	78.7	94	44	660	46.8	0	0	0	0.0	44	660	33.3
1091	138	138	95	68.8	86	60	498	69.7	0	0	0	0.0	60	498	43.4
1191	122	122	90	73.7	84	52	736	61.9	0	0	0	0.0	52	736	42.6
1291	129	129	90	69.7	84	65	938	77.5	0	0	0	0.0	65	938	50.3

U C BERKELEY (OOS) RUN DATE: 04 MAR 1993 PAGE: 2
OUT OF STATE DISPOSITION ANALYSIS REPORT - BY ISSUE DATE
CITATION ISSUE DATES: 10-15-88 TO 02-28-93

ISSUE DATE	ISSUED COUNT	INQUIRY SENT	INQUIRY RECV'D	PERCENT RECV'D	NOTICE1 SENT	# DISP'D NOTICE#1	$ DISPD. NOTICE#1	PERCENT DISP#1	NOTICE2 SENT	# DISP'D NOTICE#2	$ DISPD. NOTICE#2	PERCENT DISP#2	TOTAL.. # DISP	TOTAL.. $ DISP	TOTAL.. % DISP
0192	150	150	119	79.3	105	46	566	43.8	0	0	0	0.0	46	566	30.6
0292	178	178	134	75.2	128	69	893	53.9	0	0	0	0.0	69	893	38.7
0392	163	163	137	84.0	127	66	1,158	51.9	0	0	0	0.0	66	1,158	40.4
0492	183	183	141	77.0	131	76	1,022	58.0	0	0	0	0.0	76	1,022	41.5
0592	134	134	107	79.8	90	51	766	56.6	0	0	0	0.0	51	766	38.0
0692	160	160	140	87.5	116	56	1,157	48.2	0	0	0	0.0	56	1,157	35.0
0792	169	169	142	84.0	117	66	1,192	56.4	0	0	0	0.0	66	1,192	39.0
0892	211	211	168	79.6	136	71	1,159	52.2	0	0	0	0.0	71	1,159	33.6
0992	184	184	147	79.8	123	69	1,146	56.0	0	0	0	0.0	69	1,146	37.5
1092	182	182	118	64.8	99	51	670	51.5	0	0	0	0.0	51	670	28.0
1192	158	158	2	1.2	1	3	0	300.0	0	0	0	0.0	3	0	1.8
1292	106	106	1	0.9	1	7	0	700.0	0	0	0	0.0	7	0	6.6
	5519	5518	4118	74.6	3810	2351	30,642	61.7	0	0	0	0.0	2351	30,642	42.5

COLLECTION HISTORY AND STATISTICS FOR CALIFORNIA CLIENTS

ENFORCEMENT TECHNOLOGY, INC.

Processing and Collections For Citations Issued to California Registered Vehicles

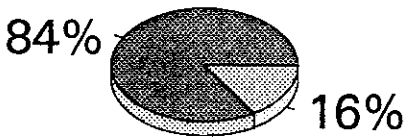
For over fifteen years ETEC has provided on-line Automated Parking Management Systems for the Los Angeles, San Diego, Long Beach, Beverly Hills, Carmel, Monterey, and Palo Alto; Los Angeles, Alameda, San Diego, and Metro-Dade Counties; as well as Chicago, Detroit, Syracuse, Miami, Austin, San Antonio, Houston, Las Vegas, Seattle, and Anchorage; and internationally, Melbourne, Brisbane, Perth, Auckland, Toronto, Tijuana, and Cordoba; plus over 50 colleges and universities.

In the course of providing processing and collection services to most of these clients we have been very successful in the improvement of their collection rates (tickets paid) over what they had realized prior to implementing ETEC systems and services. Below we have provided some collection and closure rates for some of these clients for tickets issued to vehicles registered in California:

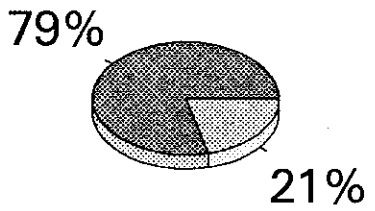
CLIENT	DMV HIT RATE	COLLECTIONS CLOSURE RATE
Alhambra	64%	79%
Monterey Park	52%	82%
Pacific Grove	65%	84%
Walnut Creek	86%	91%
Stockton	84%	84%
Monterey	93%	87%

ENFORCEMENT TECHNOLOGY INC.

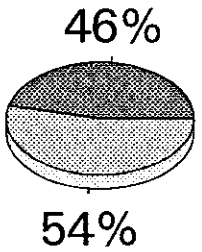
Parking Citation Collections



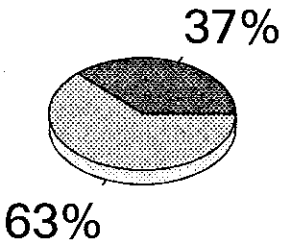
City Of Pacific Grove



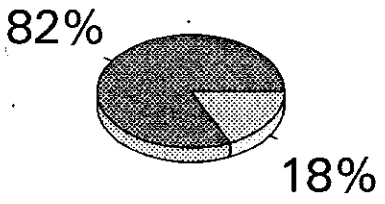
City Of Alhambra



City Of San Diego (OOS)



Univ Of Cal - Berkeley (OOS)



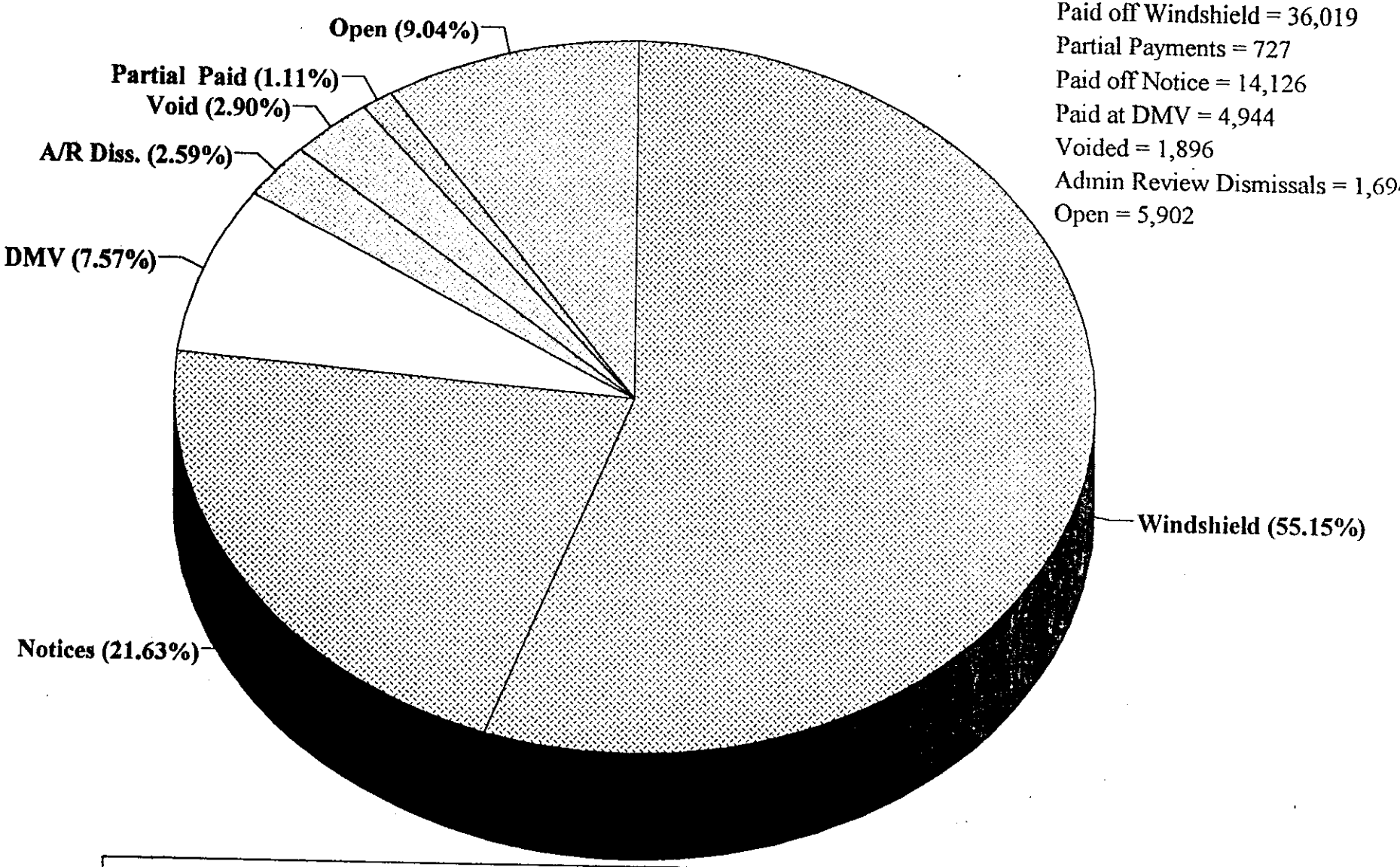
City Of Monterey Park

Paid UnPaid

Year - 1992

City of Walnut Creek
91% Closure Rate

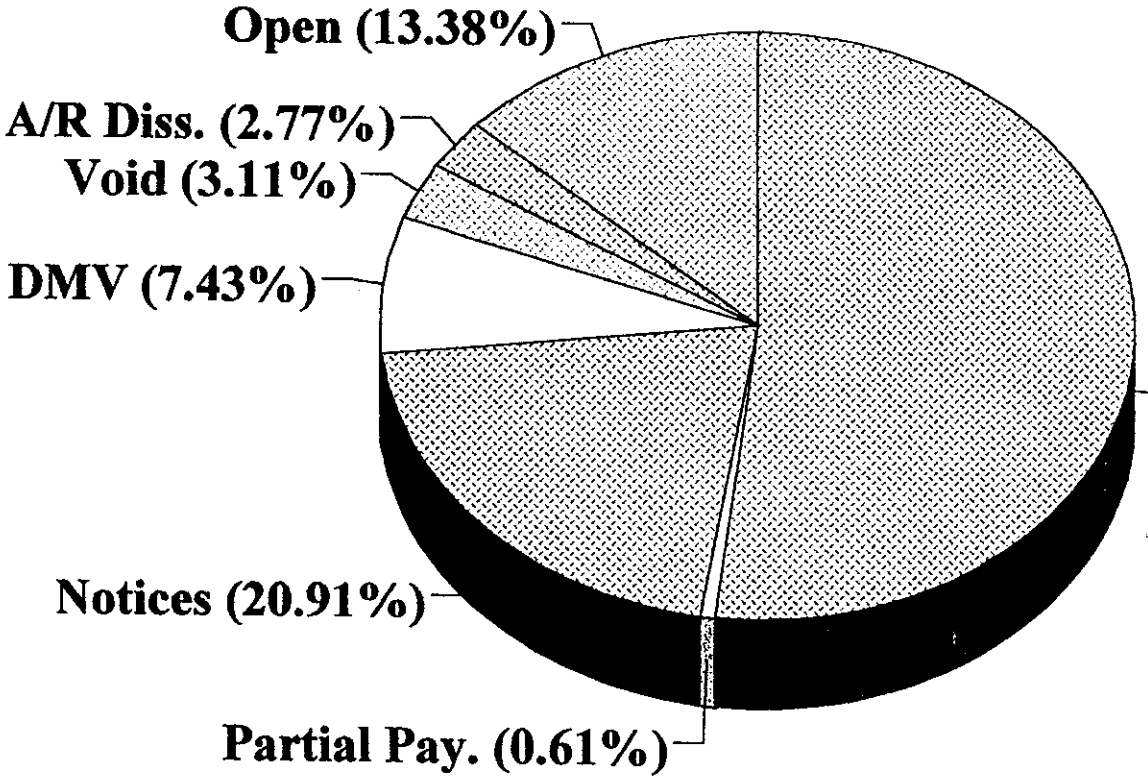
1996 Stats
Number of Citations:
Issued = 65,308
Paid off Windshield = 36,019
Partial Payments = 727
Paid off Notice = 14,126
Paid at DMV = 4,944
Voided = 1,896
Admin Review Dismissals = 1,694
Open = 5,902



First Notice Payment Rate = 49% DMV Hit Rate = 86%

Provided by ETEC

City of Monterey
87% Closure Rate



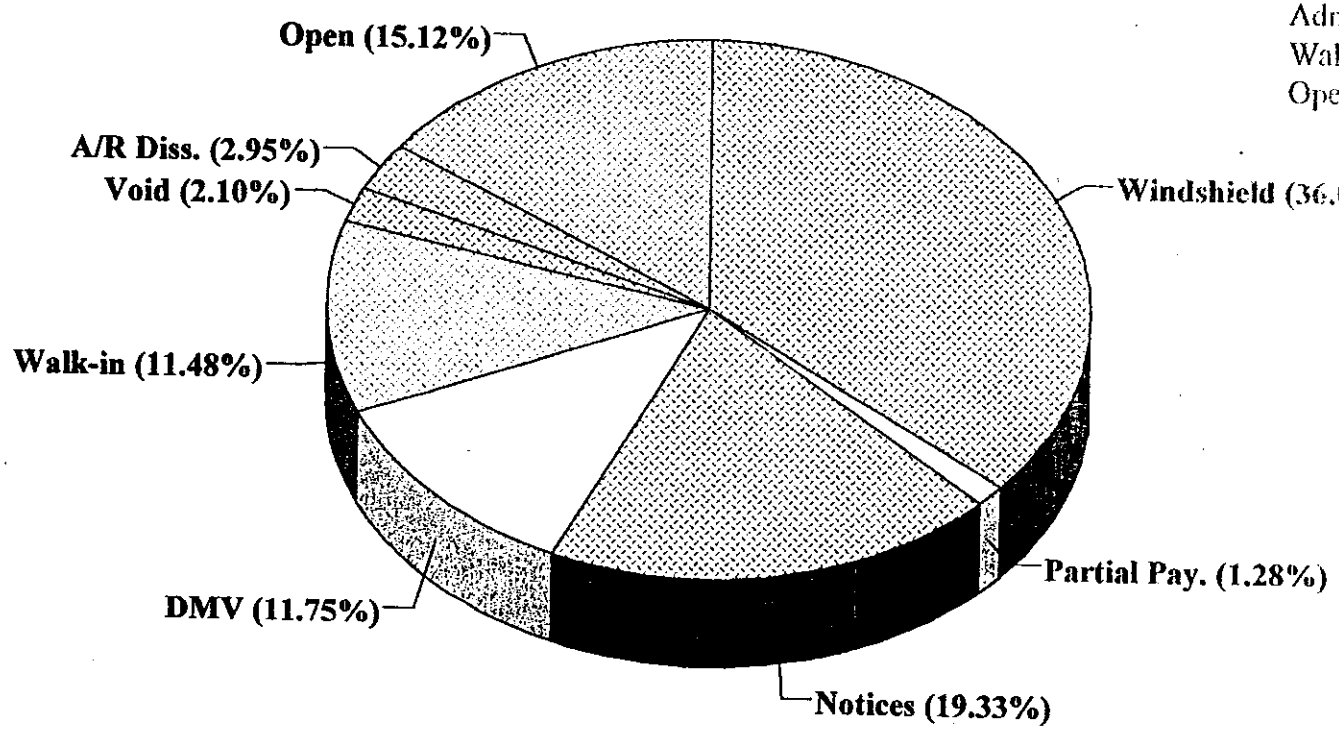
1996 Stats
Number of Citations:
Issued = 64,350
Paid off Windshield = 33,329
Partial Payments = 395
Paid off Notice = 13,453
Paid at DMV = 4,780
Voided = 1,999
Admin.Review Dismissal = 1,784
Open = 8,610

First Notice Payment Rate = 39% DMV Hit Rate = 93%

Provided by ETEC

City of Stockton
84% Closure Rate

1996 Stats
Number of Citations:
Issued = 47,838
Paid Off Windshield = 17,225
Partial Payments = 610
Paid off Notice = 9,245
Paid at DMV = 5,622
Voided = 1,003
Admin Review Dismissals = 1,409
Walk-in Payments = 5,491
Open = 7,233



First Notice Payment Rate = 32% DMV Hit Rate = 84%

Provided by ETEC

Point-of-Sale CASHIERING SYSTEM

ENFORCEMENT TECHNOLOGY, INC.

Westrex International

PCPOS 2400 PC-Based Point-of-Sale System

Westrex International
25 Dorchester Road
Boston, MA 02134-1694
U.S.A.
Tel 617-254-1200
FAX 617-254-6848

An open POS hardware solution with a modular construction for choices in CPU, keyboard, printer and all peripherals.

A PC-based system that is a flexible and expandable hardware solution to meet current POS needs and future requirements.

The PCPOS 2400 is an open hardware solution that will meet current point-of-sale needs and future requirements. With a modular design, this flexible unit offers choices for CPU, keyboard, printer, monitor, and POS peripherals.

The PCPOS 2400 will expand as PC technology advances. The system can be easily upgraded with faster CPU boards. New cards can be inserted for more functionality. The keyboard, printer or any piece can be upgraded without affecting the system. Any POS peripheral that operates with a PC can be added.

The PCPOS 2400 has a modular design for a cash register appearance, or can be setup as stand-alone pieces for user convenience. The modular design provides ease of service and a snap panel on the back of the CPU covers the cables.

PCPOS 2400 Features

Computer – The CPU board provides the speed and power required with a choice of 386DX, 486SX or 486DX. Optional memory and hard drive sizes are available. The PCPOS 2400 can connect to any server via a local area network. This open system is compatible with most PC point-of-sale packages written for MS-Windows, MS-DOS, OS/2, Unix, Xenix, Pick and other operating systems.

The open design of the computer module provides six to eight 3-4 expansion slots (CPU dependent) for add-on interface cards. The unit is standard with a floppy disk drive controller, an IDE interface, one parallel and two serial ports. Additional components include a 3.5" 1.44MB floppy disk drive with door lock, and PC power supply. Options include hard drives, additional RAM and non-volatile memory.

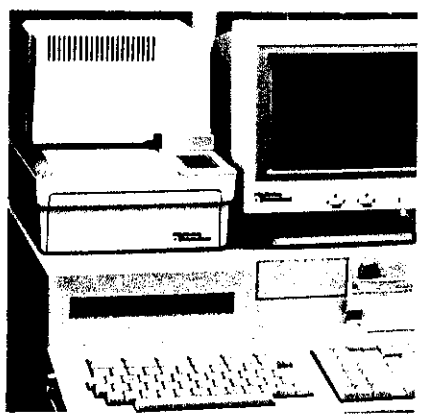
Printer – Choose from a receipt journal/validation printer, a slip printer or any printer of your choice. The PC's power supply drives the printer allowing the printer to run on DC power. The PCPOS 2400 DC printer is a reliable receipt/journal/validation printer developed for heavy duty POS applications with a print speed of up to 3.4 lines/second. Choose from 40 or 80 column single or two-ply receipt/journal, or the more economical split-platen that allows separate receipt and journal in a variety of print densities. Up to 40 lines of slip validation is available. A tab automatic receipt cutter is available for cutting single-ply paper.

Keyboard – A standard AT-101 keyboard is available with the PCPOS 2400. Alternative POS keyboards are the QWERTY-Plus, QWERTY-Plus-56 and the 128-key rows and columns. These keyboards offer programmable keys with relegendable key caps in single (1 × 1), double (1 × 2) or quad (2 × 2) sizes. All keyboards include a manager's key lock and a "SmartWedge" interface. A second keyboard port on the PCPOS 2400 is standard. A dual track magnetic stripe reader is optional.

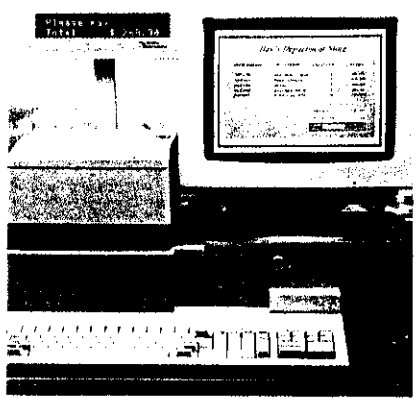
Monitor – The PCPOS 2400 is designed to accommodate a variety of monitors. Options include 9" paper white monochrome, 10" or 14" VGA color. For monitors 14" or larger, a monitor bracket is available.

Cash drawer – An all-steel cash drawer includes a five bill, five coin till. Media slot and open/close sensors are provided for security. Brackets are available for mounting the drawer beneath a counter.

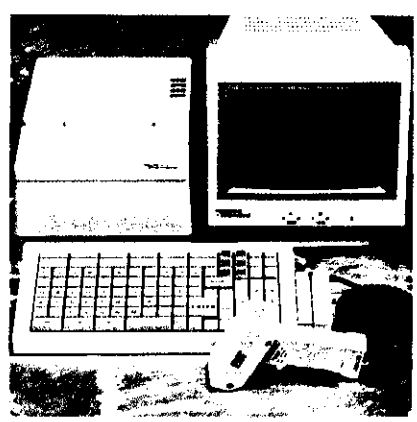
Options – POS peripheral options include customer displays ranging from low cost liquid crystal to high quality vacuum fluorescent displays. Other options include check readers, signature capture devices, and uninterruptible power supplies.



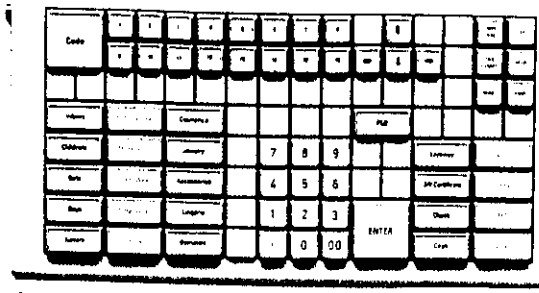
The PCPOS 2400 is flexible offering choices for each module. Above configuration shown with a Westrex slip printer.



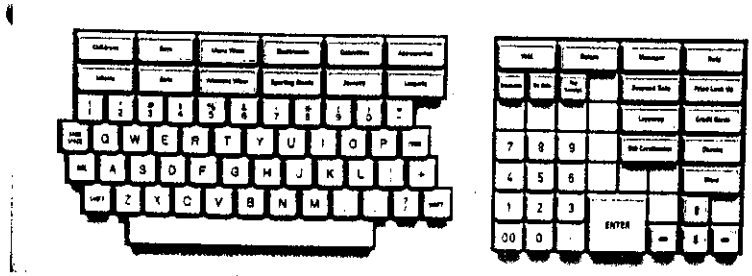
The PCPOS 2400 is designed to accommodate a variety of monitors. A bracket is available for monitors 14" or larger.



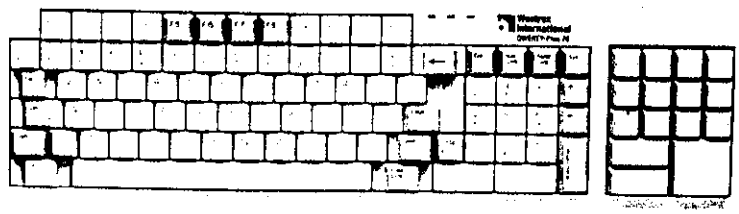
The modular design can be setup as stand-alone pieces for user convenience and counter space requirements.



A rows and columns keyboard: *128-key keyboard consists of an 8 × 16 array with numeric pad and 116 programmable keys. Programmable keys may be customized with relegendable single, double or quad key caps.*



A combination keyboard: *QWERTY-Plus-56 keyboard offers a qwerty array with numeric pad and 56 programmable keys. The programmable keys may be custom configured with relegendable single, double or quad key caps.*



A PC keyboard and more: *QWERTY-Plus-20 keyboard provides full 87-key AT with 12 programmable function keys and 4 × 5 programmable keypad. The keypad and function keys may be custom configured with various size key caps.*

4.5 in.

ABCDEFGHIJKLMNOPQRSTUVWXYZ1234567890ABCDEFGHIJKLMNOPQRSTUVWXYZ1234567890ABCDEFGH
ABCDEFGHIJKLMNOPQRSTUVWXYZ1234567890ABCD
ABCDEFGHIJKLMNOPQRSTUVWXYZ1234567890ABCDEFGHIJKLMNOPQRSTUVWXYZ1234567890ABCDEFGH
ABCDEFGHIJKLMNOPQRSTUVWXYZ1234567890ABCD

80 column, 18.5 cpi normal, 9.25 cpi elongated

2.25 in

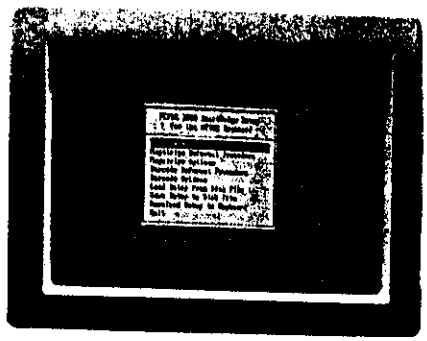
ABCDEFGHIJKLMNOPQRSTUVWX
ABCDEFGHIJKL
ABCDEFGHIJKLMNOPQRSTUVWX
ABCDEFGHIJKL

2.25 in.

YZ1234567890ABCDEFGHIJKL
MNOPQRSTUVWX
YZ1234567890ABCDEFGHIJKL
MNOPQRSTUVWX

24/24 column, 12 cpi normal, 6 cpi elongated

Choose your printer "type": *The PCPOS 2400 printer is available with a variety of print configurations, including 40 or 80 column single-platen on 3.5" or 4.5" single or two-ply paper. Split-platen includes 40/40, 38/38, 32/32 or 24/24 on 2.25" single-ply paper or 40/20 on 3"/1.5" single-ply paper. Character sizes range from 6 to 20.5 cpi. Styles include normal, elongated, italic, emphasized and double-strike print modes.*



Not just another wedge: *"SmartWedge" provides key programmability, data manipulation, and interfaces for the magnetic stripe reader and bar code scanner. Setup software with menus (shown above) and pop-up screens are included. The wedge supports both serial and laser emulations. A bar code scanner connects directly to the keyboard, freeing up an additional port on the POS system.*

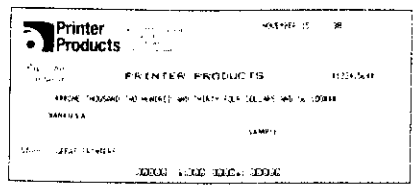
ENDORSE HERE

X

CHECK VALIDATION LINE NUMBER 1
CHECK VALIDATION LINE NUMBER 2
CHECK VALIDATION LINE NUMBER 3
CHECK VALIDATION LINE NUMBER 4
CHECK VALIDATION LINE NUMBER 5

DO NOT WRITE, STAMP OR SIGN BELOW THIS LINE

Authorized check validation: *Western International's PCPOS 2400 printer is available with a receipt/journal validation printer capable of printing up to 40 lines of validation including check validation within Federal Reserve Regulations.*



Total check writing capability: *The PCPOS 2400 printer provides exact data placement of print for completing any or all areas of a check, such as date, payee, amount and memo.*

Westrex International

PCPOS 2400 Specifications

Westrex International
25 Denby Road
Boston, MA 02134-1694
U.S.A.
Tel–617-254-1200
FAX–617-254-6848

Computer

Mainboard	386DX@40MHz, 486SX@25MHz, 486DX@40MHz
Multi I/O IDE controller	HDD and FDD controller, 1 parallel and 2 serial
Floppy drive	3.5", 1.44MB
RAM	Supports up to 32MB
Power supply	Switching 110/240 VAC, 200 watts
Locks	Floppy drive door and keyboard
Output total power	100 watts
Certifications	UL, CSA

Printer

Type	9-needle impact dot matrix	
Speed	Up to 3.4 lps (40-column format)	
Validation	Up to 40 lines	
Method	Bidirectional	
Paper feed	Friction roller	
Number of columns		
Single-platen	40 or 80	
Split-platen	24 receipt/24 journal	40 receipt/20 journal
	32 receipt/32 journal	40 receipt/40 journal
	38 receipt/38 journal	
Line spacing	6 lines/inch	
Character set	Full 96 character ASCII expanded with selectable international characters	
Interface	Serial RS-232C	
Baud	110, 150, 300, 600, 1200, 2400, 4800, 9600	
Buffer	8K standard	
Paper	3.5" or 4.5" single or two-ply (single-platen)	
	1.5", 2.25" or 3" single-ply only (split-platen)	
	Consult factory for additional specifications	
Slip validation copies	1, 2 or 3	
Maximum thickness	.010" (.25mm)	
Ribbon type	Cartridge, purple or black	
Reliability		
Mechanism life	10 million lines	
MTBF	5 million lines	
Print head life	150 million characters	
Ribbon life	4 million characters	

Monitors

9" black and white	VGA paper white, tinted, non-glare
Resolution	640 × 480
10" color	Super VGA, tinted, non-glare
Resolution	1024 × 768
14" color	VGA or Super VGA
Resolution	640 × 480 (VGA), 1024 × 768 (Super VGA)

Keyboards

AT-101	Qwerty array, numeric key pad 12 function keys
QWERTY-Plus-20	Qwerty array, numeric key pad 20 programmable keys, 12 function keys
QWERTY-Plus-56	Qwerty array, numeric key pad, 56 programmable keys
Rows and columns	8 rows × 16 columns, numeric key pad, 116 programmable keys

Customer Displays

Liquid crystal	Two lines of 20 characters
Vacuum fluorescent	Two lines of 20 characters

Power Requirements

Input voltage	120VAC, optional 220/240VAC
Frequency	50/60 Hz
Power	480 watts, operating

Physical Characteristics

Terminal	18.8"W × 5.3"H × 14.6"D
Weight	30 lbs
Printer	9.25"W × 5.6"H × 13.75"D
Weight	15 lbs
Monitor	14"W × 14"H × 14"D (14" color)
Weight	30 lbs
Keyboard	18.80"W × 2.00"H × 7.35"D
Weight	6.7 lbs
Cash drawer	18.8"W × 4.84"H × 20.0"D
Weight	30 lbs

Environmental

Temperature	
Operating	10° to 32°C (50° to 90°F)
Storage	-30° to 60°C (-22° to 140°F)
Relative humidity	
Operating	20% to 80%, noncondensing
Storage	10% to 95%, noncondensing

UNIVERSITY OF ALASKA
PARKING ENFORCEMENT CENTER

PAYMENT DATE....: 15:17:09 08 JUL 1992
CITATION NO.....: 004003112
AMOUNT RECEIVED.: 10.00 CHECK
CASHIER ID.....: LINDA

THANK YOU

****
* STANDALONE MODE **
****

L EXTENSIONS	0.00
TAX 1 TOTAL	0.00
TAX 2 TOTAL	0.00
AND TOTAL	0.00
...SH PAYMENT	0.00
CHEQUE PAYMENT	0.00
EDIT CARD PAYMENT	0.00
COUNTS PAYMENT	0.00
MISC. PAYMENTS	0.00
SH TOTAL	0.000
X 1 RATE	0.0000
TAX 2 RATE	0.0000
FUNDS	0.00

INIVERSITY OF ALASKA
RKING ENFORCEMENT CENTER
****
EG. NO.: 0001 TRANS. NO. : 0000014
/07/08 SALESPERSON: JIM
****

KU-# / DESC.	1 2	QUANTITY	AMOUNT
00000061	N N	1.000	20.00
SUBTOTAL:			20.00
TAX1			0.00
TAX2			0.00
TOTAL:			20.00
ASH			30.00

HANGE 10.00

THANK YOU VERY MUCH
PLEASE DRIVE CAREFULLY

CITY OF BEVERLY HILLS
PARKING CITATION

You are in violation of the Beverly Hills Municipal Code or California Vehicle Code. The specific violation and amount due is indicated below.

NOTE: You must respond to this citation within 30 calendar days of issue by (1) paying the penalty amount or (2) responding to the Beverly Hills Municipal Court to request a court appearance. See reverse.

CITATION: EP5000000061 Dept: MEN
Time: 11:56 Date: 06/29/92
Officer: HERNANDEZ ID: AW967
Agency: Eugene PD
Beat: Library

Loc: RAYMOND AVE ALLEY
MtrNo:
Viol: 05-5.225(3B)
Desc: ALLEY-LOAD & UNLOAD
PENALTY: $10.00

Lic: ABC123
State: CA Permit: 65214
Exp: 8/92 Color: BLU GRY
Make: HONDA
Model: 4 X 4
Remark1: TAKING TWO SPACES
Remark2: EXPIRED PERMIT

CITY OF BEVERLY HILLS
P.O. BOX 427-23, TUSTIN, CA 92681
For More Information Call 1-800-553-4412

See Reverse Side

****
UNIVERSITY OF ALASKA
PARKING ENFORCEMENT CENTER
07-08-92

*** DAILY REGISTER TOTALS ***

CASHIER ID: JIM		
CASH.....:	1	$15.00
CHECKS.....:		$0.00
SUBTOTAL.....:	1	$15.00
CASHIER ID: LINDA		
CASH.....:		$0.00
CHECKS.....:	1	$10.00
SUBTOTAL.....:	1	$10.00
DAILY TOTAL:		
CASH.....:	1	$15.00
CHECKS.....:	1	$10.00
GRAND TOTAL.....:	2	$25.00

****

UNIVERSITY OF ALASKA RUN DATE: 15:27:11 08 JUL 1992 PAGE: 1

PAYMENT DATA ENTRY EDIT LISTING FOR BATCH NUMBER 1

ENT. SEQ#	BATCH..... NUMBER	CASH. ID... CHECK	CITATION.. NUMBER	LICENSE... PLATE	CITATION DATE	PAYMENT.. DATE	BAIL.. AMT	LATE.. FEES	NSF FEE PAID	PAYMENT AMOUNT	DISM'D.. AMOUNT	PYMT. TYPE	UND/OVR AMOUNT	MAIL OTC	###
1	1	CASH JIM	004003021	A863VXM	06/16/92	07/08/92	20.00	0.00	0.00	20.00	0.00	PD	0.00	0	1
1	1	CASH JIM	500000061	L123ABC	06/06/92	07/07/92	20.00	0.00	0.00	20.00	0.00	PD	0.00	0	2
3	1	CASH JIM	004003035	A2Y6L940	06/16/92	07/08/92	20.00	0.00	0.00	10.00	0.00	PP	0.00	0	3
5	1	CASH JIM	004003036	A2YTE687	06/16/92	07/08/92	52.00	0.00	0.00	22.00	0.00	PD	-30.00	0	4
		***								72.00					
1	1	CHECK LINDA	004003112	A1PVP585	06/20/92	07/07/92	15.00	0.00	0.00	10.00	0.00	PP	0.00	0	5
4	1	CHECK JIM	004003037	A782YTL	06/17/92	07/08/92	25.00	0.00	0.00	25.00	0.00	PD	0.00	0	6
		***								35.00					
***										107.00					

Workstation ID	: Non Cash Reg
rawer ID	: mikes
Workstation	
Session No.	: 1
rawer	
ession No.	: 5
eceipt Number	: 33
ayment Date	: 03/22/2000
ayment Time	: 08:57 AM
tem Description	: ELECTRICITY BILL
ssue #	: 45545421515
mount Due	: $30.00
Amount Paid	: $30.00
alance Due	: $0.00
Item Description	: Water Bill
Issue #	: W123221
mount Due	: $97.50
mount Paid	: $97.50
Balance Due	: $0.00
tem Description	: Parking
ssue #	: A1111111
Amount Due	: $35.00
mount Paid	: $25.50
alance Due	: $9.50
aid by	: CASH
mount Due	: $162.50
Amount Paid	: $153.00
Amount Tendered	: $153.00
mount Change	: $0.00
ashier ID	: MASTER ID

Workstation ID : Non Cash Reg
Drawer ID : MyDrawer

Workstation
Session No. : 5
Drawer
Session No. : 6

Receipt Number : 40
Payment Date : 03/22/2000
Payment Time : 09:46 AM

Item Description : DOG LICENSE
Issue # : d383483
Amount Due : $36.00
Amount Paid : $36.00
Balance Due : $0.00

Paid by : CASH
Amount Due : $36.00
Amount Paid : $36.00
Amount Tendered : $40.00
Amount Change : $4.00
Cashier ID : M

Cash Other Transactions Report

Creation Date/Time: 03/24/2000 3:54:39 PM

Includes All Dates

Ottawa Production System on Oracle8-ORC8 NT

Agency: **All**

Payee Type: **DOG LICENSE**

Receipt Number	Item Number	Amount Paid	Amount Tendered	Change	Payment Type
45	D45851245	$50.00	$55.00	$5.00	CASH
53	DG32332323	$97.00	$100.00	$3.00	CASH
Payee Type Totals:		**$147.00**	**$155.00**	**$8.00**	

Payee Type: **ELECTRICITY BILL**

Receipt Number	Item Number	Amount Paid	Amount Tendered	Change	Payment Type
52	E45575458	$58.00	$90.00	$32.00	CASH
Payee Type Totals:		**$58.00**	**$90.00**	**$32.00**	
Report Totals:		**$205.00**	**$245.00**	**$40.00**	

Cash Other Transactions Summary Report

Creation Date/Time: 03/24/2000 3:54:21 PM

Includes All Dates

Ottawa Production System on Oracle8-ORC8 NT

Agency: All

Payee Type: **DOG LICENSE**

Payee Type Totals:	**$147.00**	**$155.00**	**$8.00**

Payee Type: **ELECTRICITY BILL**

Payee Type Totals:	**$58.00**	**$90.00**	**$32.00**

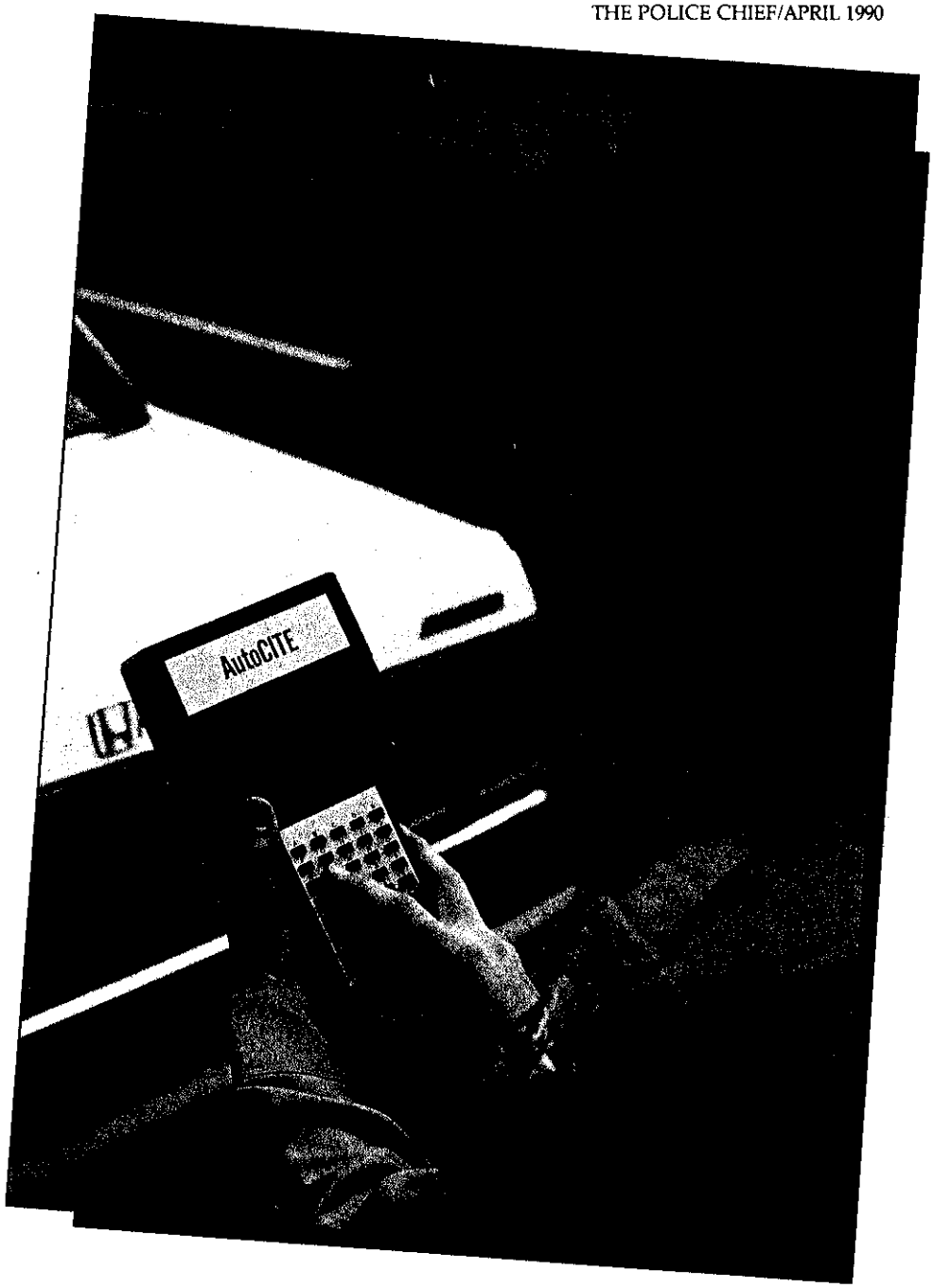
Report Totals:	**$205.00**	**$245.00**	**$40.00**

SALES BROCHURES AND ARTICLES

ENFORCEMENT TECHNOLOGY, INC.

On the Cutting Edge

Handheld Police Computers: The Ticket to the Future



By Commander CHARLES H. PARKS, Traffic Enforcement. Division, Long Beach Police Department, California, and Lieutenant WILLIAM SKINNER, Traffic Commander, San Diego Police Department, California

The manual procedure of issuing parking citations and traffic tickets is as tedious as it is old. Ticket books, carbon copies, illegible scribbling and writer's cramp are all by-products of the handwritten citation. Yet another manual process—keypunching the hard-to-read information into the data processing equipment for transfer to the main computer system—must be performed after the citation has been issued. Additionally, a considerable amount of clerical and staff time is associated with shuffling, batching, tracking and preparing handwritten citations for each stage of the process. These steps contribute to the errors, job dissatisfaction and unnecessary costs associated with citation management.

Handheld terminals and data capture devices have been used in the private and public sectors for inventory control and utility billing for several years. The mid-1980s saw manufacturers focus on the development of handheld computers to issue citations for parking violations. This new application of the technology is unique in that a printed paper copy is required to be placed on the vehicle in violation.

Handheld Technology in Law Enforcement

The handheld computers used in law enforcement today are small and light enough to hold in one hand while inputting necessary information with the other hand. Upon completion, the citation produced by the printer in the handheld computer is placed on the windshield of the vehicle. These citations are produced more efficiently, more accurately and more legibly than the handwritten citations of the past. The citation information is stored as citations are generated and electronically unloaded at the end of the shift to a host personal computer (PC). The PC data is then transferred electronically to the agency's main processing computer. An extensive management reporting capability is also included with the host PC, which provides access to reports without having to wait for information provided from the larger main system.

Another excellent feature of the total parking citation program is the handheld computer's capability for storing and accessing lists while issuing a citation in the field. These lists can be "scofflaws," or vehicles that are stolen, wanted or have stolen parking permits.

In 1986, handheld computers for parking enforcement were tested in actual field operations by several agencies in California. Fully operational systems were installed in the cities of Pacific Grove and Paramount in early 1987, and since that time, over 100 agencies across the country have made this technology part of their enforcement programs.

In January 1990, the Livermore, California, Police Department began using handheld computers for the issuance of moving traffic violations. This enhancement of the technology, though it em-

ploys the same handheld computer, has the capability to accommodate a magnetic stripe reader for capturing data from the new California drivers' licenses, which feature magnetic stripes similar to credit cards.

Parking Enforcement in Two Major Cities

The cities of Long Beach and San Diego, California, have a long history of taking innovative and progressive approaches to parking and traffic enforcement. Both cities closely followed the development of handheld computers and were quick to see the benefits of using them for parking enforcement. Their innovation in parking enforcement actually goes back to the early 1980s, when both cities took over the processing and collection of parking citations from their respective court districts. Since parking violations are still adjudicated as a criminal matter, rather than a civil case as in some states, the violator has the right to appear before the court. All other functions of parking citation enforcement in both cities are administered by city departments.

Although the cities differ in population and area, they are very similar in many other aspects, including the methods and resources used for operating their parking enforcement programs. Long Beach has about 415,000 people, including a densely congested beach community. San Diego's population is just over one million, but it is a much larger beach community spread over a broader area. Both cities are in the Southern California metropolitan area with similar congestion problems. Tourism is a major industry in both Long Beach and San Diego. Additionally, both cities have major ports with large naval installations and international commercial airports. Three of the largest universities in the country—Long Beach State University, San Diego State University and the University of California at San Diego—are also located in these two cities.

While each city has its own philosophical approach to the administration and focus of on-street parking enforcement, they are almost identical in many aspects of their total parking programs. In Long Beach, parking citations are issued by two distinct groups of parking officers. At the police department, 11 parking and intersection control officers (PICs) work in the Traffic Division and are responsible for all aspects of parking enforcement citywide. In addition to citing parking violators, PICs impound scofflaw and hazardous vehicles, recover stolen vehicles, direct traffic and provide general information to the public.

Another 25 parking enforcement officers (PEOs) operate out of the public works department in conjunction with the street-sweeping equipment. Violators are cited for not moving their vehicles along designated curbs on street sweeping days. This program has been in place for 20 years, sweeping every city street once each week, and has become the model used by other cities across the country.

Until the 1950s, parking citations in the city of San Diego were written by police officers on three-wheel motorcycles. Today, as in Long Beach, this function and other responsibilities are handled by the nonsworn PEOs. These 34 PEOs all work in the Traffic Division but are deployed from three stations covering different geographic areas: Traffic Division for the east, Western Division for the coastal area and headquarters for the central city.

Both cities use large mainframe computers to run their parking, processing and collection systems. In Long Beach, this computer is operated by the Management Information Services Bureau. The processing and collection functions are provided by the Finance Department, which is on-line to the mainframe. This department is responsible for data entry, payment processing and various other computer processes, and provides an interface with DMV for information and vehicle registration, vehicle registration "hold" placement and delinquent notice mailings to the violators who fail to pay their citations. California law provides for a vehicle registration hold on renewal until all parking citations are cleared.

San Diego also operates a large mainframe computer through the San Diego Data Processing Corporation (a city corporation). The city treasurer's office provides the same processing and collection services as does the Finance Department in Long Beach. In fact, these two major cities use similar software applications on their mainframe computers and have worked closely on shared improvements over the years. Both cities issue roughly 500,000 parking citations annually.

Selection and Installation of Handheld Computers

At the end of 1988, both Long Beach and San Diego issued comprehensive requests for proposals (RFPs) through two totally separate and independent open bidding processes. Several vendors answered with proposals to provide the cities with their respective systems. In each RFP process, the same vendor was selected based on (1) proven performance, with existing systems in place in other agencies; (2) a lightweight single-unit-construction handheld computer and printer; (3) the capability of issuing 300 citations on a single charge; and (4) storage capacity for 30,000 to 40,000 license plates on a "hot list." The selected vendor's system met all of these specifications and more. The system, known as the AutoCITE (Automated Citation Issuance System), is manufactured specifically for parking citation issuance.

Following the selection process, installation and training was scheduled for June 1989 in Long Beach and July 1989 in San Diego. A priority for the city of Long Beach was to implement the system as soon as possible in order to eliminate costs associated with errors and illegibility, and to automate the data entry process. A total of 47 handheld computers were purchased—18 for the police department and 29 for the public works department. For a cost of about $150,000, the city expects to save $200,000 per year.

Toward the end of June.1989, the complete system was installed, and 65 enforcement personnel and supervisors were trained during a two-day period. On July 1, 1989, the system was put into full operation. The AutoCITE system runs on an IBM PS/2 at each department that is connected through a terminal emulation program to the mainframe computer. AutoCITEs are unloaded (30 seconds per 100 citations) at the end of each shift, daily officer activity reports are produced automatically and the data files are transmitted electronically to the mainframe.

San Diego kicked off the new system by using June 1989 as an "Amnesty Month." This was followed by full implementation of a handheld computer system to issue citations and identify scofflaws, as well as a very active towing effort. During the amnesty period, parking violators were allowed to pay for outstanding citations and were credited for any penalties that had accrued. The priority for San Diego was to have the handheld computers loaded the first full day of operation with the current list of 26,000 habitual offender license plates, representing about $12 million in fines and penalties.

In San Diego, 35 handheld computers were installed at three separate stations and 38 PEOs and supervisors were trained during the initial training phase. As in Long Beach, these handheld computers were connected directly to the mainframe computer for data transfer. Purchased by the city for about $135,000, the system went into full operation immediately following the third day of training on July 28, 1989.

Evaluation

From July 28 to August 25, 170 vehicles were impounded in San Diego, which accounted for a total of 2,414 outstanding citations, totalling $105,916. Only 114 cars were impounded in the same period the previous year. The first vehicle towed in July 1989 had 62 outstanding citations, totalling $2,500.

Table 1 lists the number of citations issued from August through December of 1988, compared to those issued over the same period in 1989 after implementation of the AutoCITE system.

Table 1
Citations Issued

	Long Beach		
	1988	*1989*	*% Change*
August	34,252	33,491	- 2%
September	34,572	31,147	- 9%
October	27,556	29,590	+ 7%
November	27,605	27,539	- 0.1%
December	34,634	34,263	- 1%

	San Diego		
	1988	*1989*	*% Change*
August	30,482	32,209	+ 6%
September	23,626	30,821	+ 31%
October	22,287	38,408	+ 73%
November	21,365	33,648	+ 57%
December	17,095	33,885	+ 98%

These citations were issued by PICs and PEOs only and do not include citations issued by patrol and motor officers.

In Long Beach, citation issuance levels remained very stable, even though both of the issuing departments experienced unusually low personnel deployment levels during the second half of 1989. Street-level deployment shortages were attributed to illness and in-service training of new officers.

Although the citation issuance numbers in San Diego illustrate a significant increase in the citation productivity in the last months of 1989, as compared to the same months in 1988, the increase can be attributed to both the new system and an increase in PEO staffing levels.

Another factor more directly attests to efficiency of the handheld computer system: citation issuance levels in San Diego remained relatively stable while impounds increased dramatically. It should be noted that an officer *cannot* issue citations while impounding a vehicle. It is quite common for an impound to take as much as 45 minutes to complete (including confirmation of outstanding citations and completion of the report). Table 2 shows a comparison of impounds for San Diego in 1988 and 1989.

Table 2
Vehicle Impounds in San Diego

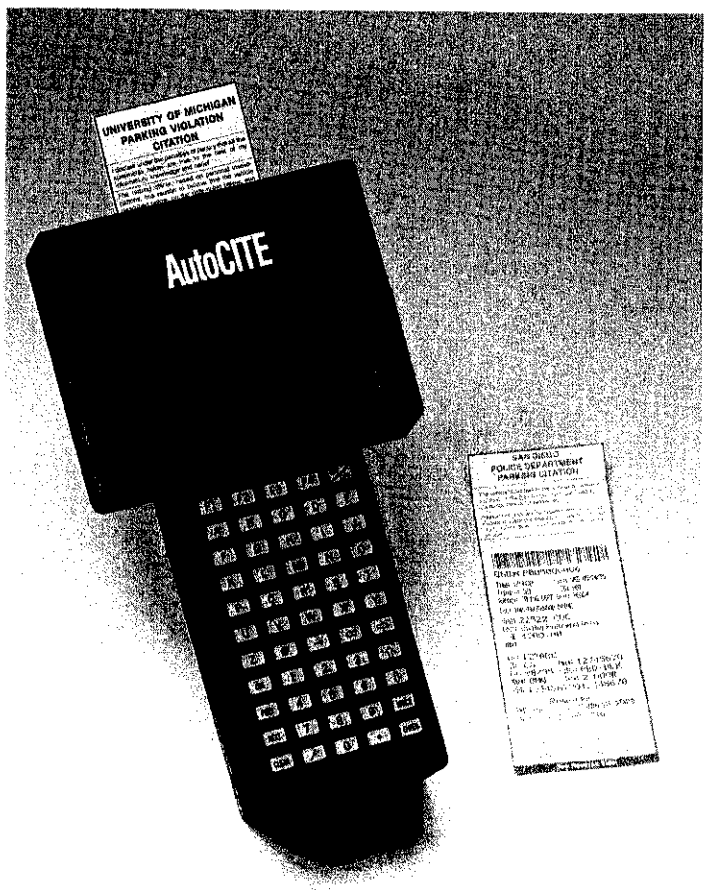
	1988		
	Impounds	*Citations*	*$ Value*
August	18	318	11,305
September	31	383	16,112
October	34	588	23,505
November	28	NA	NA
December	18	NA	NA

	1989		
	Impounds	*Citations*	*$ Value*
August	182	2,410	106,605
September	99	1,338	55,977
October	91	1,156	49,682
November	87	1,192	52,946
December	115	1,326	53,386

Citation and dollar value statistics for August through October of 1988 were compiled by hand for an internal evaluation report. Because of this very tedious and time-consuming manual process, this was not done for November and December of 1988 for this report.

Of the total number of impounds, 75 percent were habitual offenders found during normal citation issuance procedures.

In addition to identifying the majority of the vehicles for scofflaw impounds, the system has the capability to recognize stolen vehicles for recovery. In San Diego, stolen vehicle cases that are in the Automated Regional Justice Information System (ARJIS) are retained in the handheld computers for 90 days. Since September 13, 1989—the first day stolen vehicles were added to the hot list—the recovery of 25 stolen vehicles can be directly attributed to this system. In fact, the recovery of one stolen car found on the hot list also led to the arrest of two suspects for narcotics-related offenses.



Time Management

The time saved by PEOs since the implementation of the handheld computers has primarily been in "out-of-service" time. The officers require less time to research scofflaw vehicles due to the automatic search functions built into the computers. Previously, the officers had to research the current status of suspected scofflaw vehicles via computer printouts or by telephone.

Officers have also saved time that used to be spent correcting or dismissing citations due to omissions and errors. Since the computerized system eliminates the actual handwriting of citations, the number of citation corrections or dismissals for writing errors and illegibility has substantially decreased. The system also prompts the officer from screen to screen while issuing the citations, thus reducing the number of citations dismissed because of omitted information.

The amount of time officers spend voiding citations has also decreased. The edit function allows the officer to correct errors before the citations are actually issued, with the result that many of the voids of the past have now been eliminated.

This system has actually added some new tasks to the daily routine of the supervisors. These tasks include unloading of the AutoCITEs on the host PC,

voiding citations at the PC, up- and downloading hot list data to and from the mainframe and transmission of daily citation data files to the mainframe. Supervisors are responsible for coordinating the program with the data processing department (or corporation in San Diego), the treasurer or finance office and the vendor (Enforcement Technology of Santa Ana) regarding changes and additions to the agency data files and tables in the AutoCITEs.

The Records Division in each department has saved a considerable amount of time and storage space. When citations are voided by supervisors automatically at the PC level, the records personnel no longer have to sort or store the original paper documents. Citation files can be searched on-line at the PC as well as at the mainframe without involving the Records Division.

The system has also improved the ability of supervisors to manage citation-related information. The citation reports capability at the PC enables supervisors to retrieve reports, such as officer activity, that would have been impractical or impossible to obtain in the past.

Conclusions

Public opinion has been generally positive regarding the computer-generated citations. Inquiries to the parking enforcement office concerning illegible citations have decreased dramatically. In fact, many citizens have actually been very curious about the computers and their sophisticated capability for identifying wanted vehicles.

The AutoCITEs have also received enthusiastic acceptance from all of the PEOs. Specifically, they appreciate the fact that stolen vehicles, scofflaw vehicles and stolen residential permits are instantly identified by these computers. In addition, the computer-generated citations can be issued just as quickly as—but far more accurately than—handwritten citations. Daily activity logs, now produced by the system, are no longer a tedious handwritten task for the Long Beach Police Department PEO. No PEOs have voluntarily left the San Diego Police Department since the inception of the program last July. Although it is difficult to associate this directly with the introduction of the computers, they have led to an increase in officer morale and interest in the job. The PEOs hate to think of ever going back to handwritten citations.

In checking with some of the other users of this technology—even those much smaller in terms of personnel and citation issuance levels—we found they had experienced similar positive effects on their parking enforcement programs. Productivity increases were cited by the cities of Lakewood (four AutoCITEs and 30,000 cites/year), Pacific Grove (two AutoCITEs and 30,000 cites/year) and others. The city of Laguna Beach, which implemented six AutoCITEs in June 1989, issues about 55,000 citations per year and has a very active booting and towing program for a small beach community. According to city statistics as of December 1989, it had booted 93 vehicles in the six months since the implementation of the system—compared to a total of 33 vehicles booted during all of 1988. This 270 percent increase in booting resulted in an increase of 207 percent in the amount of fines collected.

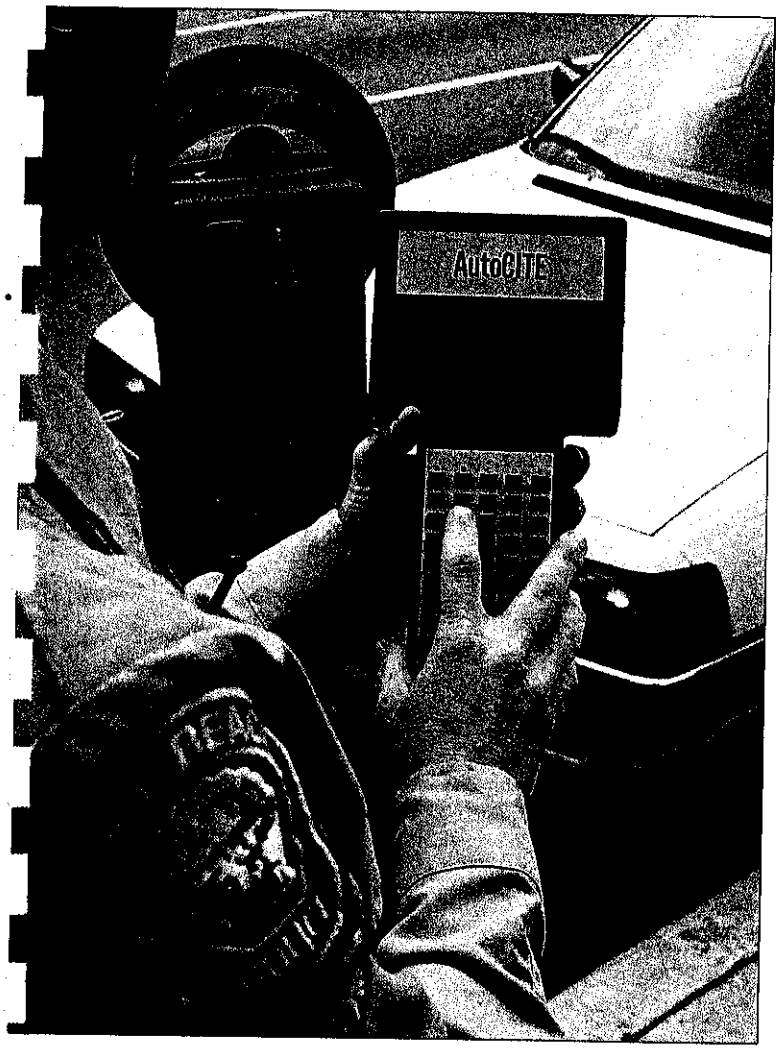
While some critics maintain that handheld computers do not work for large cities, the experiences of Long Beach and San Diego speak for themselves. This technology has been fully operational in police and parking departments for over three years, and it works for both small and large agencies. These computers can be used for parking citations, traffic tickets, field interviews, false alarm responses, abandoned vehicle or towing reports and other short form reports that require a field paper copy.

The handheld police computer is the ticket to the future, and only our imagination is required to advance them to the next generation. ★

Reprinted article from *The Police Chief*, April 1990.

COMPUTER TICKETING

AUTOMATED CITATIONS



n a time when increasing revenue and business process re-engineering are top priorities, he City of Long Beach has taken 'he plunge and invested in an automated citation system.

BY NANCY LYN HOGAN
MANAGING EDITOR

At 5 a.m. when most Long Beach residents are warm and snug in their beds, the street sweeping crews begin their daily shift. And trailing behind the street sweepers are Parking Enforcement Officers (PEOs) — armed with handheld citation computers to ticket vehicles parked in street sweeping zones.

In July 1989, Long Beach PEOs parked their paper ticket books and began issuing citations on handheld AutoCITE computers manufactured by Enforcement Technology (ETEC) in Irvine, Calif. The units weigh a slight 2 pounds each, including a built-in printing unit. It is light enough to hold in one hand while inputting the citation data with the other.

There are 53 units currently being utilized in four Long Beach departments; the Traffic Division of the Police Dept., the Marine Bureau, the Planning and Building Dept., and the Street Sweeping Division of the Public Works Dept.

DATA ENTRY REDUCED

Long Beach still has five to six agencies that write tickets by hand. They account for about 11 percent of the tickets issued in the city, and these citations still have to be manually entered into the main computer at City Hall. For the remaining citations issued in Long Beach, the workload at City Hall has changed completely in terms of data entry.

"We have cut down our data entry tremendously," said Patty Heintzelman, the business services officer of the Financial Management Department. They were able to eliminate one full-time position immediately because of the new technology. "We also saved a lot of time in errors because we are not having to correct errors in the data now," said Heintzelman.

Mistakes used to translate directly into lost revenue. After the PEOs' shift, manual tickets would be brought back to City Hall for data entry into the main computer system. The handwritten tickets were often hard to decipher. Any ticket that was to hard to read — or was entered incorrectly — meant the ticket might be dismissed and the revenue lost.

Data entry for street sweeping citations has been eliminated with the automated system. After the PEOs finish their shifts and return to their department, the AutoCITE is uploaded into an IBM PS/2. It takes about one minute to upload 100 tickets. Up to 300 tickets can be written before the unit needs to be recharged, so no recharging is needed during a shift. At the same time as the daily citations are uploaded into the PC, the "hot sheet" information from the Police Department is downloaded into the AutoCITE and the unit is recharged. The hot sheet contains information on stolen vehicles and scofflaws — vehicles having five or more unpaid tickets. The entire downloading/uploading/recharging process can be completed in a matter of minutes at the end of the shift.

INCREASED REVENUE

Hot sheet information is updated once a week with the most current stolen/scofflaw data. Any vehicle parked illegally that comes up stolen or scofflaw on the AutoCITE can be towed. "If it is a stolen, we can radio in and have it recovered immediately," said Erline Walczak, the supervisor of the Street Sweeping Division in Long Beach.

Prior to the automated system, license numbers were called into the dispatch system to check for stolen/scofflaw information only when the vehicle "looked suspicious." In this way many potential tows were missed.

INCREASE REVENUE

The revenue from towed vehicles has changed dramatically since 1989. According to Patty Heintzelman, "When we first started using the AutoCITE in 1989, we realized about $266,000 in revenue from towed cars. In 1993 we realized $663,000 in revenue. So I think we have had almost $100,000 increased revenue each year from using the AutoCITE. That is where we have really realized an increase in revenue."

The City of Long Beach maximizes this revenue by doing its own towing. An average tow charge for a vehicle is $80. If the vehicle has unpaid registration, tickets, or if it needs to be unlocked before towing, the charge could be considerably more. The city is able to generate revenue from the tow itself, the daily storage charge on towed vehicles and from selling any car in the tow yard that is unclaimed. Tow revenues alone have already more than paid for the cost of Long Beach's 53 units and yearly maintenance agreement.

REPORTS

Another way the automated system has proven valuable in Long Beach is by utilizing the available reporting system. "The reports are invaluable," said Walczak. The reports are pulled daily at 3:30 p.m. after the PEOs come in from their shift and the units have completed the downloading process. The reports are also pulled on a monthly basis for record keeping. These reports show exactly what the PEOs have done during each and every shift. If a PEO normally issues 50 tickets a day and that number goes down to 25, the supervisor will be alerted right away that there may be a potential problem.

Error reports are printed out at City Hall and they have been a useful tool for supervisors. "We can see what kind of errors they're making, which has really been a benefit to us," said Heintzelman. "We know immediately where training needs to be done, and if an officer is not doing something correctly it's quickly evident to us. We can let them know they need to train a particular individual on a particular aspect of the system," she added.

"Reports give us an accurate time of citing," added Walczak, which can be critical if a citizen tries to claim that they were cited before the appropriate time on a timed-zone parking area. The report can be used, for example, to prove that a ticket — on a "no parking after 8 a.m." zone — was issued at 8:05 a.m. instead of 7:59 a.m. as a citizen claimed.

HIGHER MORALE

An automated system may be slower than ticketing manually. Patty Heintzelman explained that PEOs "get impatient because the machine doesn't go as fast as they want it to." While it may be possible to issue tickets faster by hand, Heintzelman made it very clear that there is not a department in Long Beach using the automated system that would want to go back to issuing tickets manually.

The units have proven invaluable because of the data entry no longer needed at City Hall, the increased revenue, the reporting system available to check productivity, and the substantial growth in towing revenues because of the ability to run all ticketed vehicles against the hot sheet data at the time of citing.

According to Erline Walczak, the computers are very reliable and the city has been impressed by ETEC's service. The increased efficiency the AutoCITE has brought to the entire citation system in Long Beach has helped PEOs to have higher morale and job satisfaction, which could be important for people already hitting the streets at 5 a.m.

■

Issue. #1 / 1996

Parking

The official [illegible] of the Parking Association of Australia

In December 1994 the Australian Federal Police ACT Region began using AUTOCITE hand held terminals to help streamline their activities. This innovative approach was recently vindicated when the ACT Region received the Government Technology Productivity Silver Award, presented on March 26, 1996.
(See page 16).

GOVERNMENT TECHNOLOGY PRODUCTIVITY SILVER AWARD GOES TO THE AUSTRALIAN FEDERAL POLICE

On December 19, 1994 the Australian Federal Police introduced the AutoCITE Handheld Computers in the ACT (Australian Capital Territory) Region. The system was designed specifically for the Australian Federal Police. It allows the officers to issue Traffic Infringement Notices as well as Official Cautions for traffic offenses and also Parking Infringement Notices.

This installation for the Australian Federal Police was a world first. They were the first police organization worldwide to introduce handheld computers for performing multiple law enforcement functions. For this innovation the Australian Federal Police were awarded the **Government Technology Productivity Silver Award.**

The Transportation Regulation Section, which is part of the ACT Urban Services Department, was involved with this project from the very beginning. As a result of their nomination both departments received awards at a ceremony at **Parliament House** on March 26, 1996.

The engineering division of Enforcement Technology, Inc. (ETEC), in Oceanside, California (USA) showed great versatility, flexibility and speed in their efforts to design and develop this system specifically for the Australian Government. Many new innovations have also been implemented since the initial installation, which have also been very helpful and useful to many other issuing agencies within the ACT and other Provinces of Australia.

AutoCITE Installations in Australia and New Zealand

Adelaide City Council
Australian Capital Territory
Australian Federal Police
Australia National University
Auckland City Council
Banyule City Council
City of Boroondara
City of Bayside
Brisbane City Council
Bunbury City Council
Burnie City Council
Cairns City Council
Canberra University
City of Darebin
Dandenong Market
Devonport City Council
City of Frankston
Fremantle City Council
Greater Geelong City Council
Glenelg City Council
Glenorchy City Council
Gold Coast City Council
Hobart City Council
Lower House of Parliament
Manningham City Council
Maribyrinong City Council
City of Marion
Maroochy Shire Council
City of Melbourne
Monash City Council
Monash University
Moonee Valley City Council
City of Moreland
City of Perth
City of Port Adelaide
City of Port Phillip
Queensland University
City of Salisbury
City of Greater Sheparton
Stonnington City Council
Town of Thebarton
Toowoomba City Council
University of Western Australia
Upper House of Parliament
Upper Hutt City Council
City of Whitehorse
City of Yarra
City of Cambridge

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LAW and ORDER

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THE MAGAZINE FOR POLICE MANAGEMENT

Product Spotlight

Handheld Computers for Patrol and Traffic Enforcement

Issuing traffic tickets by hand is destined to be a piece of law enforcement history. Ticket books, carbon copies, illegible scribbling and writer's cramp, by-products of 20th century traffic enforcement, will soon be out-moded.

Handheld terminals and data capture devices being introduced to police are small and lightweight enough to hold in one hand while inputting information with the other. Hard copies of citations are produced by a printer contained within the handheld computer.

Stored information is electronically downloaded to a host personal computer back in the station, where finalized data can be transferred to the main processing computer of the agency. Extensive management reporting capabilities reside within the host personal computer, which serves as a vast database providing access to many reports.

Computerized parking programs have the ability to store and access lists while generating a citation in the field. The computer immediately identifies stolen vehicles or invalid parking permits.

The Livermore CA Police Department joined other local agencies in 1989 by installing a handheld computer system to issue parking citations. Livermore took the lead in the use of handheld computers for issuing citations and became the first agency in the world to use handheld computers for issuing moving traffic violations.

This application utilized handheld computers previously used for parking enforcement, and a magnetic stripe reader for capturing data from the new California driver's license. All pertinent data about the licensee stored on magnetic stripes is automatically transferred to the citation. Even with the magnetic stripe reader, the handheld weighs just over two pounds and still fits comfortably into one hand.

Selection and Installation

Livermore evaluated several systems then on the market but their final selection was based on:

- proven performance with an existing system in place.

- lightweight single unit construction that included a printer.
- issuing 300 citations on a single charge.
- storage capacity for 30,000 license plates on a stolen vehicle list.
- ability to issue moving traffic tickets.

AutoCITE (Automated Citation Issuance System) by Enforcement Technology, Inc., exceeded our specifications. It is a proven parking enforcement system with the potential to issue moving citations.

Livermore's system is now fully operational; from the generation of a ticket on the street through the court and finally county data processing. We are using the system throughout our patrol division.

The system, which runs on an IBM PS/2, directly connects to the police department records management system. Units download at a rate of 30 seconds per 100 citations at the end of each watch and automatically produce officer activity reports and transmit the data files electronically to the main system. File transmissions to the court occur either electronically via modem or on a floppy disk.

Since AutoCITE ended the handwriting of citations, the number of citation corrections or dismissals for writing errors and illegibility has almost disappeared. AutoCITE also prompts the officer from screen to screen while issuing the citations. This eliminates citations requiring dismissal due to omitted information. Officers can also correct errors before issuing a citation.

The department's records division has saved a sizable amount of time and storage space as a result of AutoCITE. Additionally, citation files can be searched on-line from a personal computer work station, and are not lost because of improper filing or refiling. Supervisors' can now manage citation related information and retrieve reports that would have been impractical to obtain in the past.

The traffic system functions around moving traffic violations or the "Notice to Appear," and retains the same parking citation issuance capability. The added feature of a standard field interview module enhanced our goal of putting a handheld computer in every patrol car.

Officers also complete field interview (FI) cards on the AutoCITE which joins the parking and traffic citation database. Abandoned vehicles or short-form reports are available as additions to the traffic system.

The traffic system provides the same searching capability as the parking system for license numbers of stolen vehicles. The capability includes drivers license numbers and names for storing warrants and wanted subjects.

The field interview module searches the same informational database and can provide immediate notification to field officers concerning dangerous subjects. Such information may be helpful in establishing "probable cause" on field investigations.

Some helpful traffic system features are:

- court dates and arraignment times. Weekends and holidays are automatically excluded.
- birth date default to juvenile court for drivers under 18 years.
- table driven entry for courts, beats, names, streets, cities, violations, vehicle makes, models, states, hair, eyes, height, and insurance companies.
- generates one copy of the citation which the violator signs in the officer's presence and receives. Additional copies are available.
- officer can add remarks and notes for storage. Notes are referenced by ticket number for later retrieval.
- Pre-stored data reduces the amount of information officers need to memorize or enter. Accessing such lists usually require only one or two keystrokes.
- tickets are automatically numbered for sequential control.
- barcode printing and reading provides print fields such as ticket number, agency code and fine amounts on the ticket at time of issue.
- password protection based on a user table of name, ID, and password provide system security.
- stolen vehicle list capability alerts to "Wants" or "Warrants," keyed to the drivers license number or name. A search will identify stolen, towable or bootable vehicles.
- up to 10 violation can be entered for every citation issued.
- reader checks magnetic stripe on the back of the new California drivers license and automatically captures all driver information.

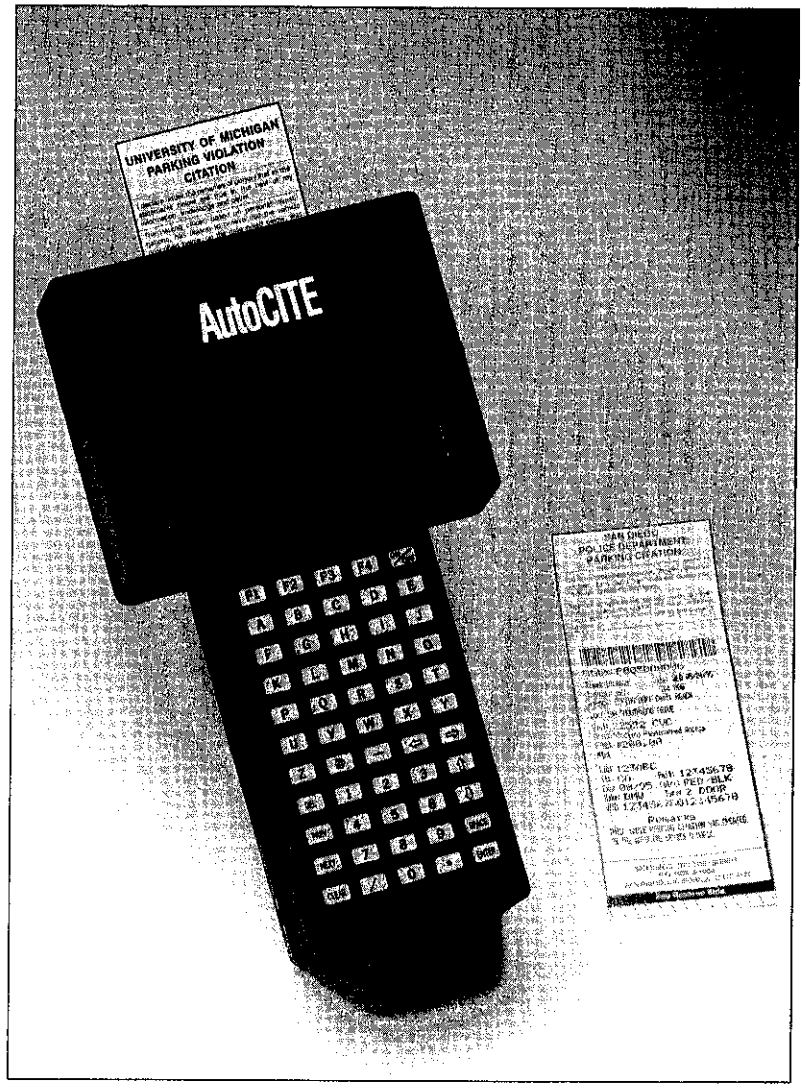
Acceptance of the Computers

Public opinion has been positive on the computer-generated citations and tickets. Complaints concerning illegible citations or tickets no longer occur. The AutoCITEs are also enthusiastically accepted by the participating officers. They appreciate the immediate computer identification of stolen vehicles and wanted persons and the accuracy of the computer generated citations and tickets.

The 21st century traffic enforcement is here and the results speak for themselves. L&O

Otto William Giuliani, a captain with the Livermore, CA, Police Department, is patrol division commander.

1-800-654-ETEC



Past, Present And Future Uses Of Computers In Traffic Enforcement

By
Bob Burgreen
Chief of Police
San Diego, California

Much can be said for American ingenuity and technology in the management of seemingly impossible problems. A good deal is also mentioned about the relative value of hi-tech versus the expense of research and development. This year's experience in the Persian Gulf provided many answers to the question of the value of high technology systems. Television accounts of the U.S. made Patriot Missile System's ability to thwart SCUD missile attacks against innocent people are but one example.

Can the hi-tech approach to citation management be justified in similar terms? To answer this question we must first examine the present state of citation management.

From the time an officer issues a citation in the field it begins an almost exclusively manually transmitted journey. After completing any required notes an issuing officer deposits the citations at an area station for transmittal to the Central Records Division. There they are sorted, batched and prepared for transmittal to the judicial system and Data Processing. Handwritten information on citations is manually keypunched for transmittal to the main computer. The citations are then returned to Records Division for filing. Although information contained in the main computer provides a records and data base capability, its potential for the total spectrum of citation management remains untapped. The copies routed to the judicial system are processed similarly by the court and the prosecuting agency. At each screening point along the way citations are often returned due to errors.

July 1989, the San Diego Police Department implemented an electronic citation management system for parking citations. The benefits derived from this program have been significant. Citations are issued in the field with the handheld computer and citation data is electronically unloaded at the end of the shift to a host personal computer. The data is then transferred electronically to the main processing computer, thus removing all the manual steps. In the case of parking citations, all transactions can be handled by the City Treasurer's staff who have access to the main computer data base. The only exception occurs when a violator wishes to contest the citation in court. Then the information must be manually transmitted to the court.

There have been noticeable savings in clerical time and storage space for the Records Division. In addition, Parking Enforcement Officers (PEO's) save time formerly spent correcting and dismissing citations. Illegibility has been eliminated and writing errors substantially reduced. The computer "prompts" the user from screen to screen to ensure that required information is entered, thus reducing the number of citations dismissed as the result of omitted information. There is also an editing function that eliminates the need to void citations containing errors. Officers can correct mistakes prior to

printing the citation or prior to issuing the next citation.

In addition to the administrative benefits, effectiveness has improved. During the first three months of operation (August, September, October) parking citations increased by 6%, 31%, and 73% respectively over the same months during 1988. The San Diego program also includes a data base of scofflaws (vehicles with unpaid parking citations) and stolen vehicles which increased the number of vehicle impounds by 900%, 200% and 167% over 1988 figures during the same time period. Impounds from the scofflaw list have followed an increasing trend. For example the number grew from 91 in October 1989, to a peak of 300 in May 1990. The number leveled at approximately 220 and remained constant from July 1990 to December 1990. The acceptance of the handheld computer by the PEO's also improved their morale.

What additional benefits can be derived from the program's application to moving citations? In addition to networking "movers" with the parking program, our Department believes a number of attributes, including, but not limited to the following will be derived:

- Automatic court date and arraignment times for three judicial systems
- Automatic birth date default to Juvenile Court for drivers under eighteen
- Data base of selected vehicle code violations
- Data base of county drivers with suspended licenses

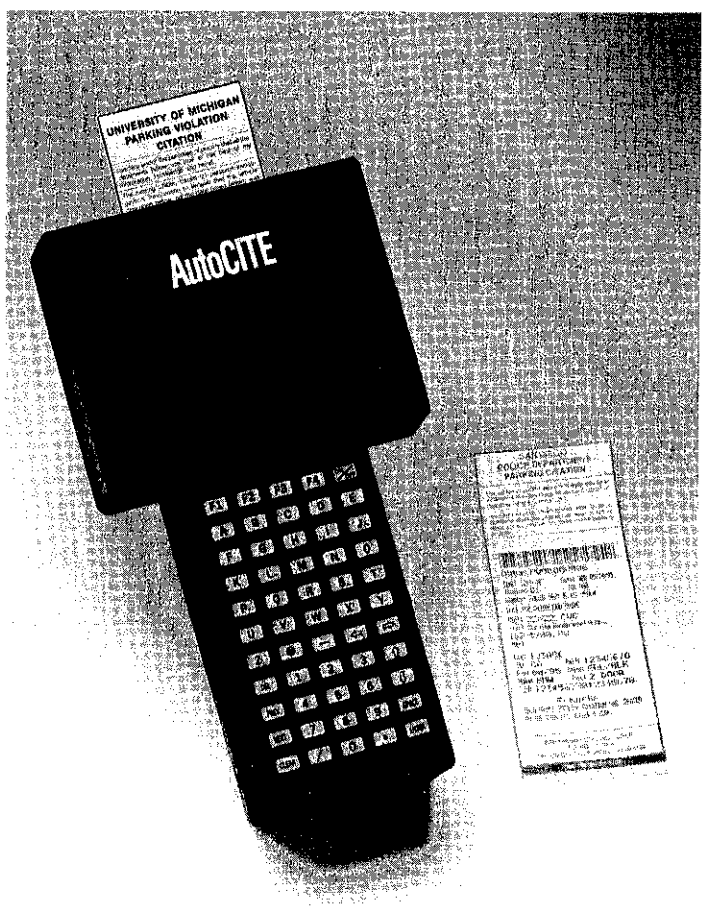
Perhaps the greatest benefit will be the linkage to the judicial system. This will virtually eliminate keypunch functions and expedite the transmittal/retrieval of data. Specific violations can be routed directly to the appropriate prosecutorial agency, further eliminating delays. Through a partnership with the court system, automatic trial scheduling can be accomplished. Defaults can be built into the system to prevent officers from being scheduled for court on days off or during vacations.

Research and development by the computer industry for law enforcement application continues to hold great promise and should be encouraged by everyone.

Enforcement Technology, Inc., the vendor for San Diego's AutoCITE parking citation system, continues to make technological advances. The corporation has developed a strip reader to accommodate the new California drivers licenses. In addition, technology exists that will permit interfacing with our new communications system through Mobile Data Terminals (MDT). We anticipate this will be a great step forward and provide field officers with automatic data base searchers as they routinely complete citations.

The city of Livermore is currently issuing moving citations with the AutoCITE system and we have been eagerly watching their progress. We plan to evaluate the features of the Livermore system closely as we move forward with a feasibility study for the development of a comprehensive parking/moving citation management system.

The only limits to the application of computers to citation issuance and management are those imposed by budget or a lack of imagination.



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ENFORCEMENT TECHNOLOGY, INC
"YOUR TICKET TO THE FUTURE"

DELINQUENT PARKING CITATION COLLECTIONS
THE MILWAUKEE STORY

In 1998 Professional Account Management, LLC (PAM) partnered with *Enforcement Technology, Inc. (ETEC)* to install and operate a state of the art parking citation-processing system for the City of Milwaukee. The City of Milwaukee was looking for several important features including handheld computers for citation issuance, integrated tow management and cash management, and a Y2K compliant Windows based citation-processing system. The City also wanted it's new vendor to aggressively pursue the collection of delinquent parking citations.

PAM and *ETEC* worked together to customize *ETEC's* **AutoPROCESS** citation-processing software to meet the requirements of the City of Milwaukee. The tow management process was redesigned from the ground up to meet the City's requirements and specific attention was paid to features in the citation processing software. that would support collection activities. All 47 City of Milwaukee parking checkers were provided *ETEC's* **AutoCITE** handheld computers for citation issuance.

The system was installed in May 1998 and has met or exceeded expectations in all areas. During the first 12 months of operation the system has processed approximately 825,000 new parking citations without missing a beat. Integral to the start up was the conversion of some 9 million old parking citations from the City's old system. These records were converted flawlessly and processing of these citations was picked up exactly where the old system left off.

Since conversion PAM has concentrated the efforts of it's collection professionals on collecting the City's delinquent parking citations. A series of collection letters expressly designed for parking violations was sent and the process of locating and contacting debtors began. An automated collection system specifically modified to address the unique properties of parking citation debt was installed. This system includes an automated predictive dialer for placing of outbound calls and an interactive voice response unit to handle inbound calls. The interactive voice feature allows debtors to call and make payment arrangements 7 days a week, 24 hours a day. Telephone numbers for new accounts are obtained daily through an automated process that eliminates the delays of standard skip tracing methods.

PAM and *ETEC* are proud to report that during the first 12 months of our contract with the City of Milwaukee collection of delinquent parking citations increased by 80%. The City has realized a gross revenue increase of $2.2 million from delinquent parking citations because of our increased collection activities and collection revenues continues to rise. Can we do the same for you? Call **PAM - 414-342-7705** or ***ETEC* - 949-707-3832** and let's talk about it.

"TICKET TO THE FUTURE" VIDEO

ENFORCEMENT TECHNOLOGY, INC.